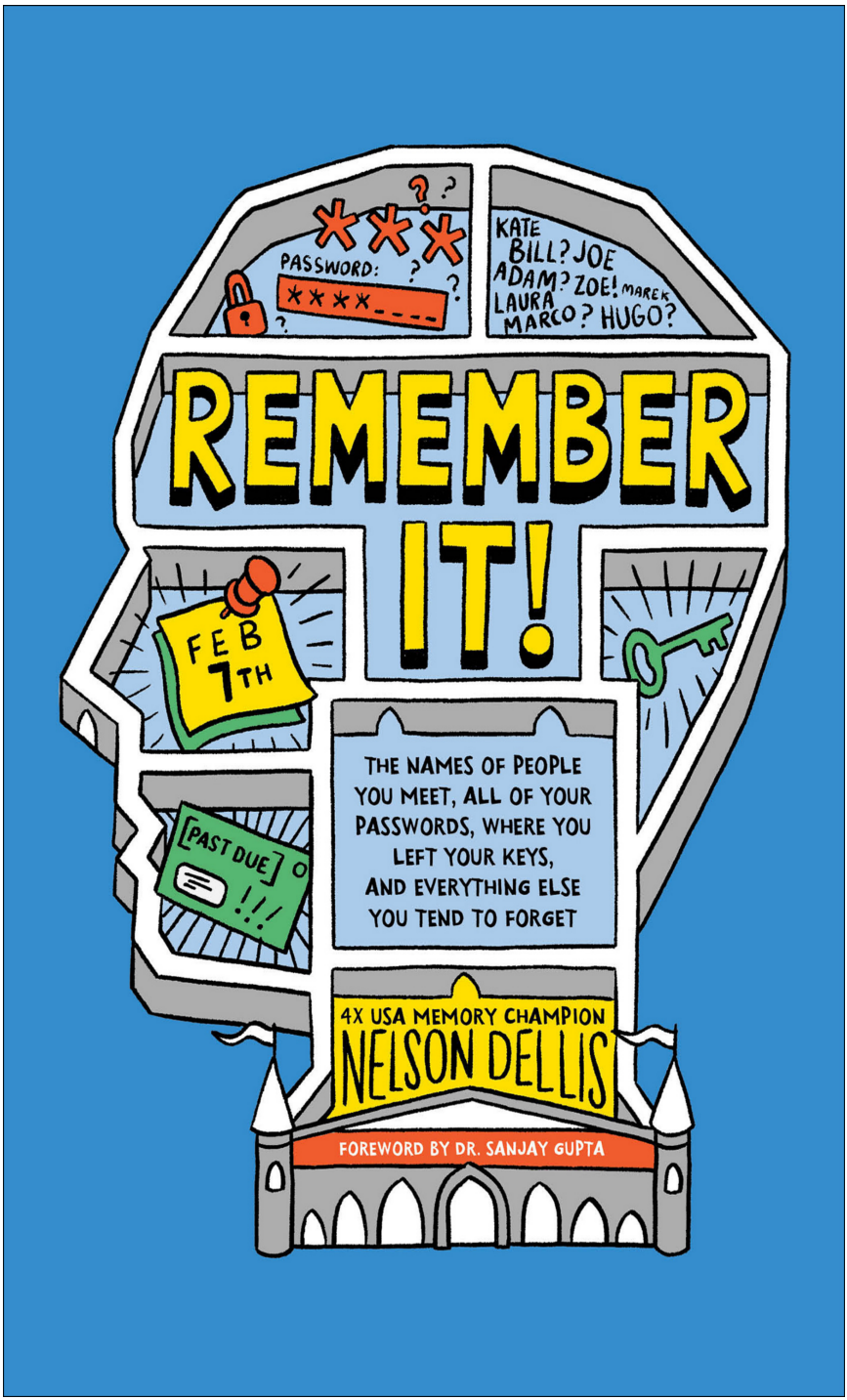
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KATE
BILL? JOE
ADAM? ZOE! MAREK
LAURA
MARCO? HUGO?
REMEMBER IT!
FEB 7TH
[PAST DUE]
!!!
THE NAMES OF PEOPLE YOU MEET, ALL OF YOUR PASSWORDS, WHERE YOU LEFT YOUR KEYS, AND EVERYTHING ELSE YOU TEND TO FORGET
4X USA MEMORY CHAMPION
NELSON DELLIS
FOREWORD BY DR. SANJAY GUPTA

REMEMBER IT!

THE NAMES OF PEOPLE
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NELSON DELLIS

FOREWORD BY DR. SANJAY GUPTA
ILLUSTRATIONS BY ADAM HAYES

Abrams Image, New York

FOR LEAH

(AND HER BIRTHDAY THAT'S SO EASY TO MEMORIZE)

FOREWORD

DR. SANJAY GUPTA

Maybe it is because I am a neurosurgeon that people are always asking me random questions about the brain. How much does it weigh? What does it feel like? Is it really gray? The question I get more than any other, though, is about memory. Most everyone, young and old, wants to improve their memory.

How we can optimize our memory is a difficult question to answer. My simple reply has always been: Try and pay more attention to those things you are truly trying to remember. While paying attention certainly works, I knew there had to be a better and more thoughtful strategy. That is why I was so excited to meet Nelson Dellis.

The first thing you notice about Nelson is his size. I'm not sure what I expected of a memory champion, but a six-foot-six-inch mountain climber wasn't quite it. The second thing was his congeniality mixed with an obvious attentiveness. In an age where it is difficult to get people to look up from their screens, Nelson was fully engaged with me and his surroundings. I was about to better understand why.

We were on location at a beautiful old mansion, the Swan House in Atlanta, Georgia, and the subject of my show was, of course, memory. Before we got into the techniques to improve and enhance memory, I wanted to better understand what made Nelson, a four-time USA Memory champion and grandmaster of memory, tick.

Like many people who make changes to their physical or mental health, Nelson was greatly moved to do so by someone close to him. His grandmother suffered from Alzheimer's and eventually passed away from the disease. This lit a fire deep inside him and inspired the tremendous efforts he has made to improve his own memory.

It is important to know that Nelson wasn't born with any super memory skills; because of his family history, he may even have an increased risk for diminishing memory. After all, there are more than five million people affected by Alzheimer's disease living in the United States, with the number increasing every year.

There is no way to overstate the memory capabilities of Nelson

Dellis. He has memorized 339 digits in five minutes and 217 names in fifteen minutes. I went to medical school and studied neuroscience, but I can barely remember the names of five people at a cocktail party. Nelson is a memory athlete and a remarkable teacher. It was time to see if any of it could rub off on me. We settled on learning ten U.S. presidents, specifically the twenty-fifth to thirty-fourth presidents (because hey, why not?). The Swan House, Nelson told me, was a fantastic location to create a "memory palace." With its old-time charm, nooks and crannies, trinkety-trinkets, and the like, Nelson explained that one could really store a lot of information in a place like this. It is an ideal memory palace.

He walked me around the room, starting with me imagining opening the window door to our left and seeing Mount McKinley in the distance, with arctic, snowy air blasting into the room. As soon as I envisioned this, I knew I would never forget it. Not only could I see the mountain range, but I could feel the cold air on my skin—which I can still feel as I write this—a constant reminder that William McKinley was the twenty-fifth president of the United States. Just to the left of that window door was a small bar with a large teddy bear standing there, sipping a drink—Teddy Roosevelt, of course. A large raft floating on a globe represented our twenty-seventh president, William Howard Taft; and a bright yellow tennis ball with the name Wilson on it—for Woodrow Wilson—smashing through a grandfather clock in the back corner of the room.

It took just a few minutes for me to encode the ten presidents into images and place them around the memory palace. At the time, I thought there was no way these images would stick in my brain, but it has been a year since my tour of the memory palace, and I am now confident I will always remember them. Even Nelson would agree I was exhibiting a fantastic memory, and it only took several minutes of him training me to get there.

As you dive into this fun and zany book of memory techniques, keep in mind the early lesson that we too often forget: pay attention, fully and thoroughly. You will not only remember better, but you will also experience and enjoy life more. This book will make remarkable memory an ordinary part of your life, and you will not find a more engaging teacher than Nelson Dellis. I have been using the techniques in this book every day, and if you do the same you will never again forget to *Remember It!*

Dr. Sanjay Gupta
Staff Neurosurgeon, Emory Clinic

Chief Medical Correspondent, CNN

CHAPTER ONE

My Story and Why You Should Listen to Me

Whenever I try to remember, I forget.

—WINNIE THE POOH

Remember the last time you walked out of a meeting, correctly recalling everyone's names as you shake their hands goodbye? Remember the last time you went online to check that bank account you hardly ever use anymore, and you nailed the password—uppercases, numerals, and all—on the first try? Remember the last time someone asked you, "What are you doing next Tuesday?" and you recited your entire schedule and to-do list for that day off the top of your head? If you don't remember, it's probably because you *didn't* remember—and if you didn't remember, it's probably because you're one of the billions of humans on this planet with an imperfect memory.* Most of us have grown accustomed to the frustration of memory lapses, and the little things we do to get by in spite of them: calling everyone "dude"; using the same simple password on every website; snapping pics on your phone of parking garage signage and empty containers of food that you need to restock.

It seems that even when we want certain things to stick, they just slip away. Sometimes they stay in our brains for a little while, then disappear when we go a stretch without using them. Like most people, I managed to do well in school only when I studied extra hard, poring over French vocabulary words for hours, doing physics proofs over and over. But as soon as I put that knowledge to use on a test, I'd forget it as quickly as I'd crammed it into my brain. Memorization was tedious and boring, with no precise principles to speak of and certainly no reward in itself—only the hope that the material would adhere to my brain for the rest of the semester.

But then there are some things you never forget, like one startling, gut-wrenching moment that changed everything. I was in France, visiting my grandparents. My grandmother had been diagnosed with Alzheimer's a few years earlier. The last time I'd seen her, she'd had

trouble remembering where she'd left her cane, or whether she'd set her tarts in the fridge or on the counter. This time, as she sat across from me at the table, she turned to my grandfather and asked him how I was doing, and whether I was planning to visit anytime soon—completely unaware that I was right there with her. I was stunned by the depth of her lapse. It's hard to forget being forgotten by someone you love.

I started thinking about what was going on inside her mind, and inside mine. When I returned to Chicago, where I had recently moved, I couldn't find a job right away, so I looked for something else to occupy my time. A few months before the move I had taken up mountain climbing as a hobby, but if you're at all familiar with Chicago you know it's not exactly surrounded by rugged highlands. So instead of climbing, I started looking for ascents of the mental kind—little ways in which I could improve myself, not just by adding to my skill set but by actually boosting how my mind worked.

The first stop on that quest involved numbers—I had studied math and computer science, and I thought that being able to calculate in my head would make me a little sharper in my field. While researching the subject, I discovered the extreme end of it: the Mental Calculation World Cup,[†] where the best head-mathletes flex their brains, often by incorporating memorization techniques in their calculations. I wasn't particularly interested in the esoteric competition aspect, but I thought it was pretty cool that these crazy mental feats essentially boiled down to being able to remember a bunch of numbers in a row. As much as numbers fascinated me, the life-encompassing possibilities of memory—what it would mean to improve mine, as well as what it would mean to lose it as my grandmother had—fascinated me so much more. So I did what you, perhaps for reasons not unlike mine, have done: I picked up a self-help book promising "unlimited mental capacity" and "laser-sharp concentration."

HOW I ENDED UP WITH A CHAMPIONSHIP-CALIBER MEMORY

When I first picked up that self-help book, I didn't know that competitive memory events existed. Nor did I know that the top competitors all used essentially the same 2,500-year-old techniques. And contrary to my assumptions (and the assumptions of most people I meet who learn that I'm a champ), the best competitors are not photographic-memory savants but, rather, average-brained men and

women who trained very hard and mastered these techniques. I had always believed that memory was inelastic; mine wasn't great, and I didn't expect it to get much better. But I put aside my skepticism—I was feeling ambitious and was willing to experiment to test my limits—and soon discovered that the memory techniques really worked.

Their premise was fairly simple: Our brains are better equipped to remember certain types of information than others—anything involving the senses, especially sight and sense of direction,‡ is stickier than abstract stuff like numbers and concepts—so to remember those harder things we simply have to use a little imagination to "translate" them into easier things. That means turning words and numbers into pictures in your mind's eye, and imagining list items set against the backdrop of real-life "anchor points" (such as distinct rooms or intersections) along familiar paths, called Journeys.

In the first few chapters of this book you'll learn everything you'll need to know about these basics, but for now all you need to know is this: ***The best way to remember just about anything is to turn it into a mental image.*** When I first learned all this, I was so fascinated that I almost didn't care about how to apply the techniques in my everyday life. For the most part, the books I read offered clever little tricks to impress people at cocktail parties and exercises for those who wanted to become memory athletes. The practical uses took a backseat. I mainly had to figure those out for myself, such as when I interviewed for a waiter job and demonstrated my competency by learning the whole menu by heart. When I got the job, I used my newfound memory skills to keep track of orders without writing them down and to remember the names of all my regular customers (which did wonders for my tipping income). I enjoyed unlocking my memory so much that I started practicing the pure (mostly impractical but still fun) memory activities that competitors are tested on, such as memorizing decks of cards and very long numbers. I was hooked, but as much as I had improved in just a short time, I felt that I could do better.

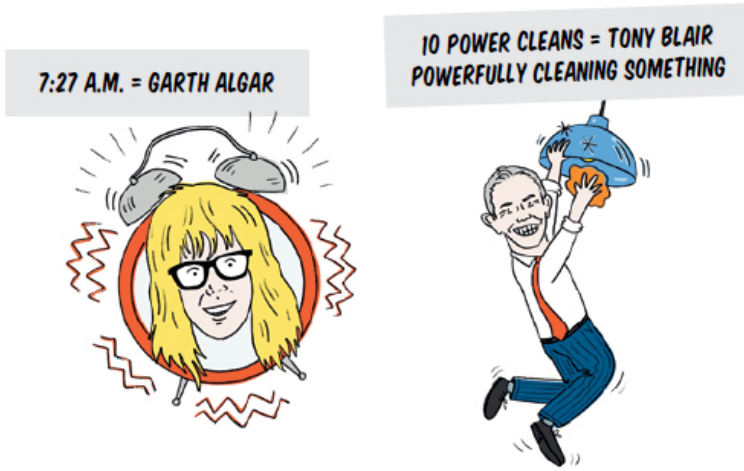
In early 2009, I decided to enter my first USA Memory Championship (USAMC), only a few months after I'd first learned it existed. If you have no idea what the USA Memory Championship is, don't worry, most people don't. In short, it's a day-long competitive memorizing event that tests you on how fast, how much, and how accurately you can memorize things—playing cards, numbers, names, words, and poems, just to name a few. I competed for the first time two years before it entered the wider public consciousness after its portrayal in Joshua Foer's bestselling book *Moonwalking with Einstein*.

Foer had written about the 2005 championship for *Slate,* and in the process discovered that mastering the sport required no innate gift for memory. In 2006, he returned—as a competitor. And won the whole thing.

I didn't know Foer's story at the time, and had yet to read his book, but I did know that anyone could win the championship with enough practice. Unfortunately, two weeks of rigorous training weren't enough (I came in sixteenth overall), but the experience fueled my drive to get better and better. It took another important experience to push me to train like a champion, and then become one.

It's easy to remember the strains and exhilaration of climbing and summiting a mountain. You don't usually remember descending it, unless something dramatic happens. But when I got down from Denali (aka Mount McKinley, the tallest peak in North America), I logged onto social media for the first time in three weeks, only to find out a devastating fact: My grandmother had passed away. The shock and grief cut right through my joy. Yet in the midst of that troubling moment, I searched for, and found, a purpose to my own life. Could I beat back this disease that had taken my grandmother's mind and then the rest of her? Could I make my mind not only sharper but healthier? Could I master my memory and help others do the same?

So I trained. For hours a day, I practiced for each event in the USAMC. I hit plateaus and had to find ways to break through. I'll spare you the full breakdown of my training regimen, but in brief, I knew that if I wanted to beat the world's best, I'd have to outwork them. That year (2010), I came in third. The next year, I trained even harder, and I became the USA Memory Champion. In 2012, I won again. Sadly, a small mistake in the finals[§] put me in second place in 2013, but more than anything it motivated me further. In 2014, I reclaimed the crown, followed by yet another win in 2015. Along the way, I also broke a number of U.S. memory records[¶] and achieved the distinguished Grandmaster of Memory title, and I am ranked among the top fifty memory athletes in the world. But as proud as I am of those accomplishments, and as hard as I worked for them, the best part of success is the opportunity it affords me to talk about memory to new people all the time, and to show them how easy, fun, and life-changing it is to learn these techniques and put them to use.

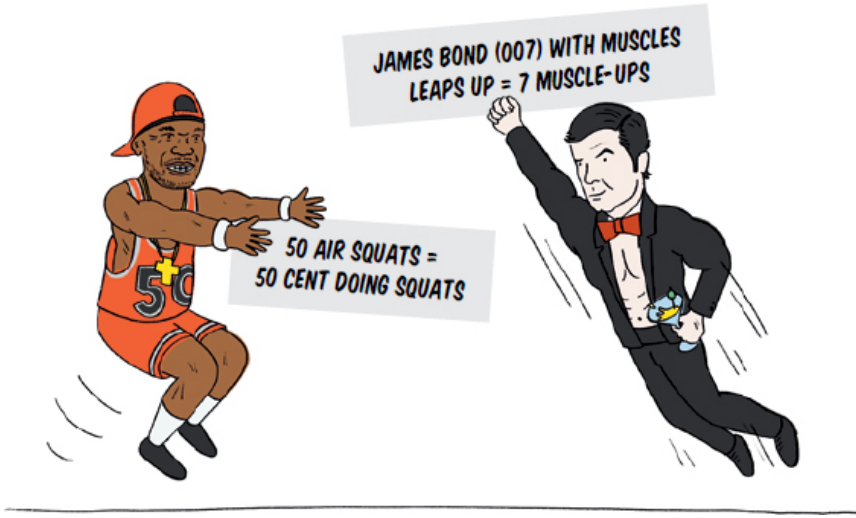


A DAY IN THE LIFE (WITH AN ENHANCED MEMORY)

To be sure, I can't teach you how to have a perfect memory—even I don't have one. I can't look at a photo for a moment and later tell you every detail about it. I can't pick up a book, flip to any page, and instantly commit it to memory word for word. But what I can do (and what I'm sure you can too) is close my eyes and picture people I know, places I've been, different types of animals, different types of cars—everything that is meaningful to me. Those are the things I use (and soon you will as well) to enhance my memory. The difference between remembering and forgetting isn't always about whether or not you can pluck a thought at random from the back of your mind; more often than not, it's about whether you put it in your mind in a memorable way in the first place.

So, what's it like being able to remember things that you typically forget? You'll find out pretty soon, when you start putting this book to use. And you'll find it has a way of turning a normal day into a pretty wild one—in a good way.

I usually wake up around Garth Algar (Dana Carvey's character from *Wayne's World*), otherwise known as 7:27 A.M. I head down to my gym and check out the day's workout. First up: Tony Blair is hanging from a ceiling lamp and giving it a powerful cleaning. Then along comes 50 Cent, floating and doing squats in midair. Finally, James Bond, with comically enormous pecs and biceps under his tuxedo, leaps up toward the former prime minister and the rapper. So that's 10 (as in 10 Downing Street, the prime minister's address) hang power cleans, 50 air squats, and 7 (or 007) muscle-ups.**



After my workout, I head home and hit the shower. That's where, like most people, I start going over my to-do list for the day. If it's not a long list, I'll store it in a Journey I've set aside for today:[††] my old apartment in Cambridge, Massachusetts.

By the front door, I email an embarrassing, inappropriate picture of my business partner, Brian, to all my contacts. Whoops! (Don't worry, Brian—that's not meant to scare you; it's just meant to scare me into remembering to email you.) In the kitchen, I look at my website on my laptop when along comes a construction crew that smashes a wrecking ball into the screen. Startling, for sure—enough so to remind me to work on my website later—but I've gotta keep moving. I head into the living room, where there's a giant floating brain with a full set of facial features, glaring at a deck of cards as it tries to memorize them. I don't know whose brain it is, but it doesn't really matter; it'll be my (admittedly much smaller) brain later doing the card memorizing. Finally, in my bedroom, I train with Oscar De La Hoya, who wears a no. 4 jersey, trading jabs and uppercuts.

Once I'm clean and dressed, I'll bring those images to action: I'll sit down and send Brian an email, spend some time working on my website, do my memory training, and then head out to train with a client at 4:00 P.M.

While I'm walking to my appointment, I run into a guy I recognize on the street. The scar on his cheek reminds me of the time I met him at a party and imagined a dog mauling his face. I felt a little guilty about setting the dog on him, but how else would I remember his name?[‡‡] I greet him as if I've known him for years: "Hey, Diogo!" We

make plans to grab dinner, and he asks me to call him after I'm done with my client. He gives me his number, 305–399–3026, but I'm in a hurry so I don't bother putting it in my phone. I just close my eyes and picture Ulysses Grant (the person I've very intentionally associated with the number 305 to help me remember it), along with the Teenage Mutant Ninja Turtle Michelangelo (399), trying out wigs (30) on a snake (26).

When I go to meet Diogo for dinner, he's brought along his friend who was with him at that party. His friend is a stunningly tall woman with blond hair and big baby-blue eyes that catch my attention. I remember seeing them transform into two bright blue planets of the *Star Wars* universe to remind me that her name is Princess Leia . . . well, rather, just Leah.[§§] "Leah, great to meet you!"

Just your typical day, right?

Of course, I spend the majority of my time as a memory competitor, an ambassador for the sport, a teacher of my methods, and a speaker on the transformative power of memory training. Even when I'm off duty, I often get roped into little demonstrations of one sort or another. My friends rarely let me get through a night where I'm not asked to show off the power of my trained memory. Memory training has changed my life in so many ways—not least of which is overcoming my frustrations and fears of forgetting. And it has turned out to be so much more fun than I ever expected.

You already know how frustrating it is to forget things, and what a relief it is when you rack your brain and finally come up with what you're looking for. That's why you picked up this book in the first place. But I want you to aim a little higher than relief. Memory should be joyful—not just because you can recall what you need to when you need to, but because the act of storing it is an adventure in itself. And that's why this book exists: ***not only to help you improve your memory in everyday situations but to completely change your assumptions and expectations about how memory works.***

HOW THIS BOOK WORKS

Never again will you be a victim of your failing memory! This book will help you remember those everyday things that you always hate yourself for forgetting. I originally decided to write this book for that very reason—to reach everyday people needing their memory for everyday things. Of course, there are a number of memory books already written, so what makes my approach different? Other memory books explain the techniques well enough, sure, but none of them

manage to relate the techniques to the common day-to-day events that we all experience regardless of our age, career, or social status. We all know life can throw us curveballs from one moment to the next, so this book and my methods are here for you as a metaphoric catcher's mitt—greased and oiled up so you catch whatever ball is thrown at you without a hitch!

This book may also help you win a memory competition someday, if that's something you want. But these are not the reasons why I wrote it. I want to teach you how to make the most of your memory by making the most of your memories—which is to say, how to take the things that have already been burned into your consciousness, whether real or fictional, and use the most powerful images you can think of to remember any new information that comes your way. These are game-winning techniques, but more importantly, they're life-winning techniques, straight from the mind of a regular, relatable dude (me).

Now, when I say "powerful," I'm not talking just about images that can help you turn abstract things like numbers into more concrete visuals—I'm talking about wild, outlandish scenes that might make you chuckle or make your skin crawl but, most importantly, are so absurd that they're totally unforgettable. This book is no dry self-help tome. It is loud, offbeat, colorful, and, oh yeah . . . *MEMORABLE!*

Whether you're learning one technique at a time to help you in the smallest nuggets of your life, or attempting to train your memory to become a certified steel trap, this book contains it all. When you think of a situation where you'd like to remember better, look it up in the contents, turn to the corresponding page, and teach yourself how to never forget in that instance again. There is no defined linear path to follow in this book (save for the mandatory "basics" chapter at the beginning) and that is the beauty of it. No boring recommendations for how many minutes you need to train every day or difficult tasks to practice. You are in charge of your own learning pace.

The goal of this book is not only to make you never forget stuff again but also to make sure you never forget stuff that is useful for your life ever again. For all those times you thought to yourself, "Damn, I forgot . . ." this book will most likely have a chapter on how to deal with it. Jump from chapter to chapter or read the whole thing through. Whichever way you read it, you'll be sure to walk away with a bag of tips and tricks that'll help you start taking control of your own memory.

Onward!

AAAAH!

* It's much easier to keep track of the number of people with perfect memories: zero, and holding steady.

† A competition consisting of events like adding ten 10-digit numbers and finding the square roots of six-digit numbers—y'know, basic math stuff.

‡ Not crazy mental compass stuff, just things like knowing a path from one familiar place to another (e.g., from one end of your house to the other).

§ Note to readers and self: If anyone ever asks you to memorize a deck of cards, no matter how high or low the stakes, always ask them whether they want you to memorize it from front to back or back to front.

¶ I held the following records for awhile: fastest time for a deck of cards (40.65 sec), most digits in 5 minutes (339 digits), most words in 15 minutes (256 words), most digits in 30 minutes (907 digits), and most decks of cards in 30 minutes (9 decks and 2 cards). I *still* hold the U.S. record for the most names in 15 minutes (217 names).

** For those not familiar with CrossFit movements, a hang power clean is a common weightlifting maneuver where you lift a barbell from a "hang" position (with the barbell hanging just above the knees) to a racked position across the deltoids. An air squat is the body weight exercise movement of dropping into a squat and standing back up again. Finally, a muscle-up is an exaggerated pull-up that vaults your upper body above the bar, with arms fully locked out at the top.

†† A common misconception about Journeys is that you need only one place, and that you can just cram everything you ever need to remember into it. In truth, you need at least a few, if you're using them with any regularity and don't want to get them mixed up. If you're trying to learn something for life (say, you're a history buff and want to remember every U.S. president in order), you need a designated place just for that list.

‡‡ He actually got the scar from a life-threatening car accident.

§§ Leah is now my wife!

CHAPTER TWO

Basic Things You *Must* Remember Before You Start

It's quite odd, how one occasionally has to hunt around in one's memory as if for a book in a library without call numbers . . .

—DOUGLAS HOFSTADTER*

Quick. Think back to your grade school days and try to remember the first thing that comes to mind: something that you learned from your favorite teacher; something trivia-worthy you could impress your friends with. Maybe it's the song "50 States That Rhyme," where you recite all fifty U.S. states in alphabetical order:

Alabama, and Alaska, Arizona, Arkansas,
California, Colorado, Co-nnecticut and more,
Delaware, Florida, Georgia, Hawaii, Idaho,
Illinois, Indi-a-na, I-o-wa . . . 35 to go . . .

Or maybe it's the ruling monarchs of English history sung to the tune of "Good King Wenceslas":

Willie, Willie, Harry, Stee
Harry, Dick, John, Harry three.
One, two, three Neds, Richard two
Harrys four, five, six . . . then who . . .

Or maybe it's as simple as stating all nine planets in order (okay, eight if you were born as of the 2000s). Could you do that? If you did, you probably didn't use a song but, rather, a sentence as your mnemonic crutch. Something like My Very Educated Mother Just Served Us Nine Pizzas.

How about when you learned the five Great Lakes and your teacher told you to remember the word "HOMES" instead? H for Huron, O for Ohio, M for Michigan, E for Erie, and S for Superior. I

probably don't even have to remind you of that one, do I?

For me, without a doubt, the first thing that comes to mind is the Greek alphabet song I learned in second grade from Mrs. Greenberg:

Alpha, Beta, Gamma, Delta, Epsilon, Zeta, Eta,
Theta, Iota, Kappa, Lambda, Mu, Nu, Xi . . .

I can remember it clear as day: Mrs. Greenberg etching the whole list of foreign Greek letters onto the blackboard as I sat there at my desk, Trapper Keeper wide open, pencil case in hand, ready to whip out whatever school utensil was necessary to get that A++. And then that song! I don't even know what tune it was, but I can sing that whole Greek alphabet song as if I were six years old all over again.

We all have some form of knowledge etched into our brains from when we were young. Whether it was some fancy song that helped you remember the quadratic equation[†] or some silly acronym that helped you remember all the irregular verbs in French,[‡] we all were introduced to the most basic of memory techniques at a young age.

While it's clear that those memory tricks worked at the time, could you explain *how* or *why* your teacher made it stick after all these years? Was it the act of turning the information you were learning into a song, into a funny sentence, or maybe into a short acronym? Was that it? If you tried that now with new information, would that information also stick for the next twenty years? The honest answer to that question is *probably not*. But *why* not?

Sure, our teachers gave us little mnemonic tricks here and there, but no real training in how our memories work and how to apply the underlying principles of those tricks to every other thing you would learn through your school years (and professional/social life thereafter). In fact, the sad truth is none of us were actually ever given any proper instruction on how to use our memories. I mean, why is it that you can still remember all fifty states with a catchy song you learned when you were a kid, yet you can't remember the name of that person you met earlier today? Crazy, right?

Over the following chapters, you'll learn plenty of strategies for remembering—the ones they should have taught you as a kid but never did—but the first step is to start thinking differently about how your memory works and how to better utilize its best qualities. We'll need to dispel some of the horrible anti-memory notions that exist in common lore, so that you can plow full-steam ahead with the mnemonic confidence that you *should* already have. If you believe any of the following three misconceptions, you're not only wrong: you're

holding yourself back.

THREE IDEAS TO FORGET

1. Some people are born with amazing memories, and you're not one of them.

I hear this one all the time, and it's probably the biggest barrier most people face when it comes to improving their memories. I get it: What I do seems unbelievable, and if you've never tried it before, you might think it won't come naturally to you. The fact of the matter is that the only difference between you and me is that I have a ten-year head start on you. Now, I've done a ton of training in those ten years, and that's what it takes to beat a field of competitors that gets better and better every year. But I didn't have any sort of special predisposition when I started, nor did any of the people I compete against. Joshua Foer went from curious onlooker to U.S. champion in a year, roughly the same amount of time it took me. As much as I've improved my memory, I still don't have anything like perfect photographic recall (nor does anyone else, no matter what they tell you; see the *pro tip* below for more on this myth). It's also important to note that once upon a time I was not very good at memorizing anything at all. Always remember *that* whenever you feel overwhelmed or if you're frustrated that you aren't improving the way you want to—I used to suck too!

As I've said, the difference between remembering and forgetting a piece of information is not about a failure to pull it out of your brain but about a failure to put it into your brain in a memorable way. You have to forget all the little insults you've told yourself about having a crappy memory and realize you've just been doing memory wrong this whole time.

PRO TIP

In my opinion, superhuman photographic memory doesn't exist, so don't stress that you don't have this skill. On some level, we're all fascinated with the notion of human superpowers—it's a fascination that fuels a multibillion-dollar TV, movie, and comic book industry, and it's brought about many claims of natural-born talent. In *Moonwalking with Einstein,* Foer gives a remarkable account of his encounters with two prominent so-called savants. And yet as amazing as their memory feats may be, even they can't capture mental snapshots—at least not in any

way that truly resembles an actual snapshot.

There is a large body of scientific evidence, however, of something called "eidetic memory," present in about 2 to 10 percent of preadolescent children yet virtually nonexistent among adults. An "eidetiker" can often look at an image for thirty seconds, look away, and recall astoundingly accurate details about that image. Nevertheless, eidetikers make some mistakes and occasionally invent new details. After a few minutes, eidetic recall ability fades to average human levels. No one knows why it works like that, or why it doesn't last into adulthood, but some theories suggest that verbalizing—whether you say, "Hey, I'm looking at a pink saber-toothed tiger!" aloud, or simply to yourself—disrupts eidetikers' abilities, and adults are more likely than children to verbalize in this way.

2. Some people are visual learners, and you're not one of them.

This is another misconception I hear all the time. Sure, you might have a preference for hearing things spoken rather than seeing things written, or maybe you just like to write things down in your own handwriting to get you more focused on them. But if written text is your idea of visual learning, you have some serious unlearning to do.

Visual learning actually has very little to do with what you see with your eyes, and almost everything to do with what you see with your mind. Whether you hear a piece of information, read it, or copy it as you're reading it, all you're doing is giving it your attention. You can pay attention any way you want—and as we'll go over a little later, attention is a BIG part of memory—but attention is only the first step.

Creating a visual in your mind is where the real learning—or to use a more technical term, *encoding*—happens. When you think of your favorite childhood memories, do you see text scrolling through your mind or do you see faces and places? Just because we often receive information as numbers or words doesn't mean you can't encode it with pictures. Whatever you do experience—however you give it your attention—can be useful in addition to the mental images you create. Everything you can add in your mind, whether sounds, smells, tastes, or textures, is icing on the memory cake.

3. Your brain can hold only so much information.

There's a scene in Sir Arthur Conan Doyle's *A Study in Scarlet* in which

Dr. Watson is astounded that Sherlock Holmes believes the sun revolves around the Earth and not the other way around. When Watson corrects him, Holmes says he plans to immediately forget the fact. Why? Because he has no space in his brain for anything unrelated to his work, since it's packed to the gills with detective-y bits. And "there comes a time when for every addition of knowledge, you forget something that you knew before." It's a funny little theory, a sort of one-in-one-out policy of the mind. Thankfully, it couldn't be further from the truth.

According to Dr. Paul Reber, the director of the Brain, Behavior, and Cognition program at Northwestern University, the brain does have a limit, but it's far beyond anyone's reach: somewhere in the vicinity of a million gigabytes.[1] If you had a DVR with that kind of capacity, you could store *three million hours* of TV shows, or a little more than 342 years of nonstop action. You could memorize this book word for word, along with every other how-to on the planet, and still have room left over for the mechanics of the solar system.

So you can go ahead and forget what Holmes told Watson about the brain's inner workings (though it wouldn't tax your brain much to remember it either). Just remember that it's wrong.

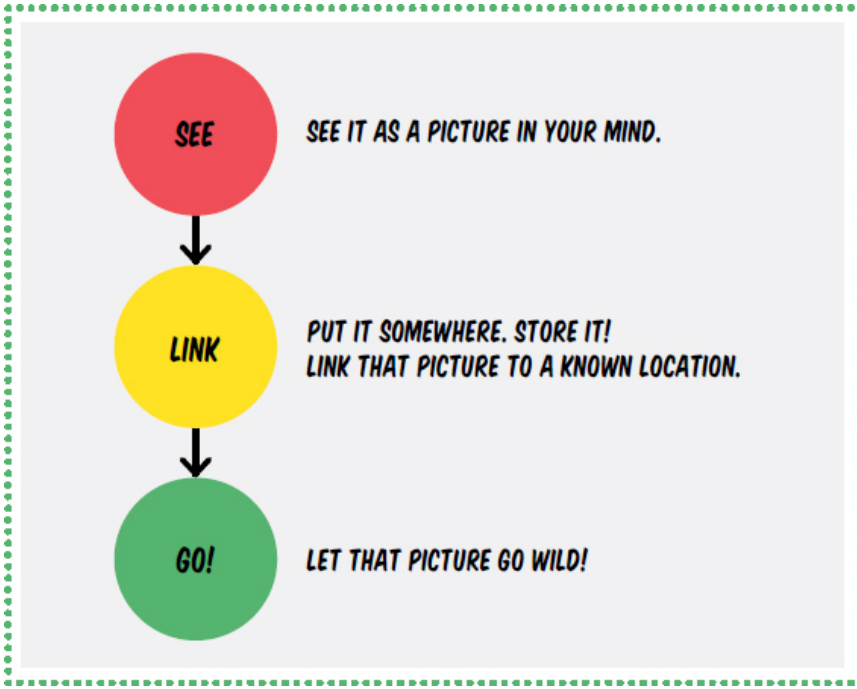
Now that we've gotten those myths out of the way and we've washed your brain clean of those impurities, let's insert three simple words that will help you remember EVERYTHING and ANYTHING . . .

THREE WORDS TO REMEMBER

SEE—LINK—GO!

Along my journey of learning memory techniques and eventually getting the opportunities to share my learned knowledge with audiences, classrooms, and the like around the world, I realized I needed a short, easy, reliable, and memorable set of instructions that I could teach *anyone*. Steps that anyone could follow in *any* situation that merited memorization.

It's easy to get caught knee-deep in all the details and nuances of memory techniques (we'll get to those details later), but my near-fail-proof, three-step process boils down every mnemonic circumstance to something fundamental and simple. You can literally apply these three words to anything you want to memorize.[§]


SEE
SEE IT AS A PICTURE IN YOUR MIND.
LINK
PUT IT SOMEWHERE. STORE IT!
LINK THAT PICTURE TO A KNOWN LOCATION.
GO!
LET THAT PICTURE GO WILD!

SEE

First things first: You can't **SEE** something if you're not paying attention. Half the battle of remembering something is honestly as simple as paying attention. Whenever I'm asked to give a quick tip on how to remember better I will, without fail, say "Pay better attention." It seems obvious, but in this day and age attention is in limited supply, considering all the distractions we have constantly bombarding us.

As you'll see, the name of the game in improving memory is *remembering* to pay attention. But of course, that requires more remembering! *GAHHH!* But fret not, the more you learn about memory techniques and the better you get at them, the more aware you will naturally become of your own memory, and in turn, the more you'll remember to remember. I promise!

Now, once you're in the mindset of paying attention and you're ready to **SEE**, you need to do something that is quite frankly, in my opinion, the most important part of remembering: You need to *visualize* what you are trying to memorize. To show you what I mean, let's take a few minutes and put our minds together—yes, yours and mine, in collaboration—to paint a picture. Here's how we do it: On my end of things, I'm going to use words to describe a little scenario;

your job is to turn this script into a fully realized movie inside your mind, reading carefully to grasp and picture every detail (in other words, visualize).

Ready? Here we go.

Imagine you're standing in a flat, grassy field, watching the gentle breeze sway the ankle-high blades. It's a sunny day, not a cloud in the sky. The grass is green as green can be and the sky is the deepest blue you've ever seen. It's hot, slightly muggy, and the smell of summer grass is wafting up your nose.

Off in the distance, you see a tractor approaching you. You can hear it motoring along, with wisps of smoke drifting out its pipes. As it gets nearer, you see something . . . unusual. Atop the tractor, at its helm, is a massive gray elephant: trunk flailing, tusks arcing skyward, moving to some faint beat emanating from the tractor's stereo system, dwarfing this tractor like a grownup on a tricycle.

As the tractor approaches, George W. Bush, our former president, comes out of nowhere, moonwalking à la Michael Jackson while smoking a cigarette. Picture his navy suit and his small, beady eyes as he does that presidential chuckle/shrug that we know all too well, while taking a deep drag of that cigarette. As he moonwalks closer and closer to the tractor, he flicks his cigarette butt off into the distance where it lands on the shell of a turtle.

This turtle is just minding his own business, sitting on the grass, strumming his acoustic guitar with a mushroom. Yes, that's right, a mushroom. He's using a mushroom as a guitar pick, and he barely notices the cigarette that bounced off his shell moments ago, as he continues to strum furiously, as if playing some Mumford & Sons song.

Let's quickly recap all that. There was an elephant driving a tractor, then George Dubya moonwalking over while smoking a cigarette, which he flicks onto a turtle playing the guitar with a mushroom.

Was that weird? Yeah, it was weird. What on earth *was* all that? Well, it was actually this 24-digit number:

5 5 4 9 6 5 7 5 0 7 2 8 7 0 4 2 4 9 9 5 3 4 4 6

HUH? Huh is right. Don't worry about the sequence of numbers or how all those characters and actions came to represent it. What's important is that imagining my story was really easy. It didn't take much effort; it was almost natural. Yes, pretty much all of it was unreal, or even impossible, but it didn't matter because our brains have the power of imagination; we're actually all quite good at that. That's how we're able to imagine the future, create new things, and reminisce about the past. But while that story has highly memorable qualities, that series of digits does not. Just looking at those numbers seems daunting and uncomfortable. It's not because *your* brain isn't cut out for it—it's because none of our brains are cut out for it.

Our brains were formed back when things were simple—when the things we encountered every day were entirely visual. These were things we had to memorize in order to survive: recognizing the

pattern on a plant to tell if it's poisonous or not, for example. There were no numbers, no names, no addresses, no poems, nothing. But slowly, as time went on, those things made their way into our societies and cultures, making our brains freak out and scream, "Ahhh what are these things?!?! I'm not used to them! Get them away! Or at least let me write them down so I don't have to think about them anymore!"

The important thing to take away here is that the brain prefers visualizing pictures over abstractions like numbers and letters. So the first step, when memorizing, is always to find a way to turn the things our brains find difficult into things our brains can **SEE** and think are easy.

LINK

Once you've found a way to **SEE** what you are memorizing, the next step is to **LINK** it to a location in your brain. We all know about and are very aware of memory storage on computers, right? I mean, how often are we frantically deleting photos on our smartphones to make space for new ones because we've run out of memory? Or how often are we buying the latest-size external hard drives to store our massive music, photo, and video libraries? The more information we create, the more terabytes of space we need to store it (by the time this book is comfortably sitting on all of your bookshelves, it could possibly be petabytes). Why does that concept make total sense for computers but not our brains? As philosophically deep as you do or don't want to get, the facts are that our brains process information and then they store it somewhere within their complex neural networks. While you may be nodding in agreement and understanding on a general level, you surely must be thinking, "But how can I knowingly store information in my own brain in a specific location?"

Think of it this way: You're working on a document on your computer and you want to save it. What do you do? You click the "save" button, right? And then what happens? A little box pops up asking you to give your newly created file a name (most likely ending with a ".doc" or ".txt"), and then you need to specify the folder or directory that you want it to be stored in ("Documents," for example). We're instructed to do this because the clever folks who invented computers want us to have an easy way to find and access the same file at a later date. (You know it's a document, therefore it's most likely stored in your "Documents" folder, under the file name that describes it—voilà!) Now, imagine that that didn't happen—that when

you clicked “save,” the document was saved somewhere in the computer, but your computer gave you no instruction on how to give it a file name and a location nor any notification that it was successfully saved to the disk. Yikes. The computer world would be an absolute mess.

I hate to say it, but this is your brain. You’re saving stuff to it without giving it the proper file name and location—no wonder you have a hard time finding it! Sure, sometimes it comes to you, but for all those times it doesn’t, wouldn’t you prefer to have a computer-like procedure to save and load things? Well, you can, and that’s what the **LINK** step is all about. Taking your mental image from **SEE** and *saving* it to a known location. Thinking about how to do that exactly may seem a bit weird, might make your brain tickle a little, or might even sound downright impossible, but it’s actually quite easy and, as I mentioned earlier, ancient civilizations did it for hundreds of years.

There are a few basic techniques for storing images in our brains, and I will go over them here briefly (and in more depth throughout the book), but the main notion I want you to become familiar with is, yup, you guessed it, **LINK**. Think of an actual chain link and how it’s usually a solid piece of metal wrapped unbreakably around another. Sometimes these links come in long chains; sometimes one link is attached or anchored to some singular point. In either case, the link is attached to something in a way that is considered unbreakable. In the

physical world, this makes sense, but what about in the intangible world of your mind—what could serve as a singular point that you could link new information to and is unbreakable? The answer is: *Things you already know*!

Think of something you know. The capital of Australia—do you know that one? Or what about the third letter of the alphabet. Or the name of the planet you live on. Or maybe you know Schrödinger's equation. There are some things that you may have known once, or that you kind of know when you happen to correctly remember them (perhaps like the capital of Australia—it's Canberra, by the way); there are things you definitely don't know (for sure Schrödinger's equation, unless you're a physicist); and then there are things you know like the back of your hand, without even thinking (the letters of the alphabet and the name of our planet). The things you know like the back of your hand can be used to link/anchor new information. In fact, your brain does this a lot already. Whenever you're being taught a new concept, a good teacher might relate it to something else that you already know in the form of a metaphor. Or you might even ask, "So it's a bit like that other thing, only a bit different with this and that?" For example, imagine if the only animal you knew of was a dog and I was trying to explain to you what a bird was. The easiest way for you to learn what a bird is is for me to explain it in terms of a dog, since it's the only animal you know. I might say, "A bird is like a dog, only smaller, with wings, and can fly."

Throughout this book, you will find different strategies to first of all **SEE**, but then also to **LINK**. There are a few different ways to use things you already know as a link for remembering new information. These methods are outlined briefly here to give you the general gist but will be reinforced as they come up again at later points in the book. The basic idea of what **LINK** is will be clear in **GO!**, but it's as easy as imagining your picture from **SEE** somehow interacting with a location. It will all make sense soon, don't worry!

1. Simple Association

Simple Association is where you use another fact, thought, idea, or mental image that you know very well and that's already inside your head. The idea is that you will link/anchor/associate your new piece of information to this other piece of information that is already well planted in your mind. This technique is great for remembering one-off things or short little facts (see chapter 3, this page, for some examples).

2. The Linking Method

The Linking Method is a simple way to remember a short list of things in a specific order. The key to Linking is *interaction:* taking your mental picture for each item and causing it to interact with the next (imagine it as a chain of links, one connected to the next). Every interaction forms a bridge that links one point to the next, creating a seamless sequence so that you never have to make a tangential leap. So instead of trying to remember eight different things on your grocery list, you have to remember only the first thing, and each item will follow sequentially (see chapter 4, this page, for some examples).

3. The Peg Method

The Peg Method is another basic technique that makes up for one of the Linking Method's biggest weaknesses: the fact that you *have* to access the sequence from start to finish without jumping around, otherwise you probably won't be able to recall the list. The Peg Method works around this shortcoming by using "pegs" (basically, other images on a pre-learned list) to "anchor" each item you want to memorize, rather than linking everything together into a chain of images. It sounds a little zany, but it's super simple and wildly effective for attaining a true mastery of any list—you'll be able to jump around that list like a champ, backward and forward (see chapter 4, this page, for some examples).

4. The Journey Method

What do Hannibal Lecter, Sherlock Holmes, the great Roman orator Cicero, and nearly every competitive memory champion (including yours truly) have in common? I wish I could say it's our crime-solving genius or our way with words (and I probably wouldn't be too far off if I said we all like a nice Chianti every now and then). But no, the thread that binds us is that we've all mastered "the art of memory," a technique that was first described around 93 BCE in the Roman rhetorical textbook *Rhetorica ad Herennium*. Today, it's known by several names: the Method of Loci,¶ the architectural mnemonic, the Roman Room technique, the Memory Palace, and my favorite, the Journey Method.

The famous story goes, that in the fifth century BCE, the Greek poet Simonides was the lone survivor of a tragic roof collapse at a banquet, and was asked whose bodies might have been buried under the rubble. The names weren't coming to him, but when he closed his eyes and thought back on the banquet table, he had an epiphany: He could remember every guest as he went seat by seat around the table.

It wasn't their faces he recalled; it was their places. That was what many coin as the birth of one of the most commonly used (and most powerful) memory techniques of the time, the Journey Method (more on this later). Sadly, more than two and a half millennia later, only competitive memory athletes and selected memory enthusiasts are using the Journey Method. Although it's no longer used commonly to memorize, say, the collected works of Homer (or the filmography of Homer Simpson), it's still the best tool out there for mental storage—it's just been lost somehow over the centuries.

Like the Peg Method, the Journey Method works by associating the information you're trying to remember with a list of things you already know—but this time the list is a series of stops along a path, or journey, through an actual *place,* a familiar place. Think of your home, or your office, or your favorite park—these are all places you have imprinted in your mind. You could close your eyes and mentally navigate through them with ease. It's those mental spaces, those journeys, that are made up of locations along a path (the front door, then the entryway, then the staircase, then the kitchen, etc.), that will provide a living place for the information you're trying to memorize. Sounds a bit complicated but it's honestly super easy once you try it, and we'll be trying a lot of it throughout this book.

The big advantage of the Journey Method is that your brain is hardwired for it. Have you ever heard a song come on the radio that instantly reminds you of where you were the first time (or the last time) you heard it? Have you ever looked at an old photo and remembered not only where it was taken but also what other streets and landmarks were nearby? Most of us take that sort of spatial awareness for granted. But it turns out we actually have specialized cells in the hippocampus—the part of our brains primarily responsible for converting short-term memory into long-term—that help us navigate spaces and remember those places permanently. Recently, neuroscientists at the University of Pennsylvania have found evidence of "geotags" in the hippocampus that allow us to remember where and when specific memories were initially formed. The geotags activate right before we remember those memories, signifying that they're not merely extra details but, rather, the keys that unlock our minds. With the Journey Method, we can intentionally slap those geotags on anything and everything we want to remember (see chapter 4, this page, for some examples).

GO!

Okay, at this point you've taken what you wanted to memorize and found a way to **SEE** it and **LINK** it—now you need to take what you have and really **GO!** with it. Let me explain what that means.

If you need to commit something to memory very quickly, coming up with pictures (**SEE**ing) and placing it in a location (**LINK**ing) will do the trick, but if you *really* want to make something unforgettable you need to **GO!** with it. Think of **GO!** as the final step where you mesh and glue everything together and add that extra magic ingredient that, like industrial super glue, makes a memorized piece of information stick.

Here's how you do it: Take what you have from **SEE** and take what you have from **LINK** and intertwine them as one. In other words, take the visual image you have in your head for what you are memorizing and "stick" it on or imagine it on, or in, or interacting with your chosen location/anchor point. You have a picture in your mind, now all you're doing is giving that picture some scenic detail—a backdrop to live in. That takes care of the meshing and gluing part. As for the extra magic ingredient, that involves taking your imagined scene (your meshed picture and location) and incorporating three things I like to call **Sensory Overload (SO), Grotesque Absurdity (GA), and Moveable Attributes (MA)**.

SO is a way to make even more mental connections with your mental images by using your four other senses too. When I talk about visualization, I don't just mean visual as in eyesight (we aren't really "seeing" things with our eyes anyway—it's all in our heads). I mean really creating an interactive, all-five-senses scene in your mind's eye. Shock value comes into play here too, especially when you just want to store some basic information and the truth doesn't matter.

For example, imagine a pizza. Go for it, whatever pops into your mind when you read that word. Pizza. Now hold onto that image for a moment. Of course, you know what pizza looks like—that's easy to visualize. But you also can imagine what it smells like, tastes like, feels like, even sounds like. To make something super sticky in your head, you're going to have to turn all the dials up to 11 and imagine the most outlandish pizza-related scene possible, using all of your senses (not just sight). That means the cheese isn't just bubbling and sizzling, it's making crazy gurgling noises (there's your sound). The grease is dripping off of it and scalding your hands (there's the touch/feel). Better yet, your hands are on fire because it's so hot. Maybe it doesn't smell and taste like pizza—maybe it's more like raw sewage (smell/taste). After all that, you might not be so hungry for pizza anymore. But if it gets your emotions running, whether fear or anger

or joy or sadness or pain, you'll be adding yet another facet to the memory that will make it stick. The important thing, though, is to make it vivid. The more you build out your mental picture into something with all the sensory information you might get in real life, the more your memory will start to cook!

I sort of touched on this in the few previous sensory examples, but **GA** is all about making those sensory additions as weird and over-the-top as possible. To take your image up even one more notch on the memorable scale, you'll want to add some type of absurdity that evokes a type of emotional response: bizarreness, hilarity, gore, grotesqueness, eroticism, silliness, etc. Don't just make that pizza a boring pizza that smells good and that dripped some steamy grease onto your hand—turn that pizza sauce into blood from a dead rat. Or maybe you're eating that pizza and the rat is sobbing (I've just given him/her human qualities) as you eat him/her alive! Or maybe the pizza has a thong on and he/she's doing a striptease for you. Anything graphic, funny, bizarre, and sometimes uncomfortably sexual (also sometimes not uncomfortable at all!) added with all your sensory information will make an image explode with brain-adhering sauce.

FORGETTABLE!
MEMORABLE!

One more small addition to these images and you'll be set; your images will seriously never be forgotten again. That addition is a **Moveable Attribute** or **MA**. **MA** falls under the broader umbrella of visualization and it is the final tweak that makes a mental picture *completely* and *absolutely* vivid. All it is is giving your already wild and crazy image some type of movement, some type of action.

Chances are you already did this naturally as you inserted **SO** and **GA**, but in case you didn't, make your visual scene MOVE! I don't have the neuroscience PhD to explain why this is so important, but I've found in all of my mnemonic experience that giving movement to an image will figuratively set your memory on fire (in a good way). Going back to the previous **GA** examples, you'll want to make that stripteasing pizza dance, bend over, twirl, and flash you all of his/her naughty parts. And that dead rat on your pizza is actually still twitching a bit because it's not quite dead yet. Gross, I know, but now the image has a moveable attribute and it will, as a result, be more memorable.

GO! breaks down into **SO—GA—MA** (which kind of sounds like what you'd say when you're about to ask your grandma if she's going to bake you your favorite cake: "SO, GrAnd MA . . ."). Adding those three little ingredients to your mental scene is like adding saltpeter to your gunpowder mix—they will make your memory gun, so to speak, go BANG! What this all boils down to is that you want to use *everything* you've got.

EXTRA TIPS YOU WON'T FIND IN OTHER MEMORY BOOKS

You now know the basics of memorization, and you're nearly ready to jump into the beef of this book. But before you do that, there are a few more pieces of wisdom I need to impart to you before you venture out there into the world of memorizing.

1. Trust your memory.

It sounds simple enough, but it's the key to improving and getting better at memorization. There are several reasons why trusting your memory matters, and most of them are practical. Surely you want to be able to store and retrieve things quickly, and at times you want to handle larger quantities of information without worrying too much about any one item. But the most important reason to trust your memory is because we all know the frustration of a memory lapse, and when it happens it has the power to shame us into thinking we

can't remember because our minds are crappy. And that's just not true. A memory lapse doesn't mean your mind has failed you; it means you've failed your mind. When you give it the right balance of **SEE**, **LINK**, and **GO!**—vivid pictures, a set of anchor points, and plenty of sensory details—you can rest assured that it won't crap out on you. Your memory was designed to work this way. Trust in the process and the skills that are already waiting to be activated within your own mind.

2. When you forget something, don't blame your memory!

Often when people forget something, they will usually say to themselves (or even out loud), "I have a horrible memory!" as if it's something they've just accepted their whole life as a personal shortcoming. This frustrates me to no end because ***no one has a bad memory—NO ONE.*** First of all (and this goes back to trusting your memory), you have to stop thinking like that. It's self-defeating and serves no purpose other than making you and others believe that your memory is inadequate. The more you give your memory a bad rap, the more it will actually mirror that fact ***(life tip #1: This applies to anything you do—if you feed the "negative beast," it will reign).***

Henceforth, I want you to be constantly saying to yourself, "Okay, Nelson didn't have a good memory and now he does. I can do the same!" Just remind yourself of that every time you get frustrated. Repeat the mantra, "I have an unforgettable memory!" Secondly, remember this: There are only two reasons why you will ever forget things. Only two.

* ***YOU WEREN'T PAYING ATTENTION.***
* ***YOUR SEE—LINK—GO! PROCESS WAS A BIT LEAKY AND/OR WEAK.***

That's it. Simple, right? Notice how neither of those reasons has to do with you having a bad memory? The first one is obvious, and we already discussed this a lot—you can't memorize anything if you aren't paying attention to it. DUH! The second one is more interesting. I'm basically saying that if you tried to memorize something using the **SEE—LINK—GO!** process and it still didn't stick, well, it means you didn't do enough of it. You need to go back and first make sure you really visualized your information, that you linked it somewhere precise, and most importantly, that you made it **GO!** (that last step is often the most common reason a memory fails). If you didn't, that means you need to go back and add more color, more intensity, more

raunchiness, more strangeness to make it pop and stick better. There are no bad memories here! Only bad images! Make them ***FASTER! SMELLIER! WITH MORE TENTACLES!***

3. Have fun!

I can't stress this enough. Memorizing has often gotten a bad rap as being a task that is boring, tedious, and completely eye-gouging. The only reason it has that reputation is because, as kids, we were never shown the correct and easy way to memorize. We always had to memorize by rote repetition, or what I like to call the brute force method. Ufff, no wonder memorizing always felt like the worst thing in the world—BECAUSE IT WAS! But with the techniques I've shown you in this chapter, and the techniques I'm going to show you throughout this book . . . NEVER AGAIN! Memorizing is fun, silly, empowering, and the greatest skill/tool you'll ever learn. Have fun with it! And even if you sometimes fail at making something stick, no worries. Get back up and try again. Remember that it's a skill, and, as with any skill, to really get good at it you need to practice often. I didn't become a memory champion overnight; it took me two full years. That being said, you'll be able to accomplish a surprising number of impressive things off the bat with almost zero practice. You ready?

Without further ado, I now release you into the wild world of mnemonics. Remember to **SEE—LINK—GO!** and all will be groovy. You will be a memorizing machine in no time!

* From one of my favorite books, *Gödel, Escher, Bach: An Eternal Golden Braid* by Douglas Hofstadter. If you're of the musical, mathematical, logical mind, I highly recommend reading it. It's difficult at times but insanely rewarding and mentally satisfying. This was the book that kick-started my interest in cognition and memory.

† One quick search of YouTube for "quadratic equation song" will bring up hundreds of made-up songs to help you remember that long equation from your childhood!

‡ "MRS. R. D. VANDERTRAMP" is the phrase you can remember. Each letter stands for an irregular French verb.

§ To make this three-step process easy to remember, I've made it resemble a stop light—red, yellow, green. Once you hit that green light, your memory will be speeding!

¶ *Loci* is the plural of *locus,* Latin for a specific location or place.

CHAPTER THREE

Brain Farts, Name-Amnesia, and the Everyday Things That Drive Our Memories Mad

The true art of memory is the art of attention.

—SAMUEL JOHNSON*

Alright, you're ready to dive in! Let's go!

The best place to start is with the everyday kinds of things that don't require too much technique and setup to memorize—like where you parked your car, why you walked into a room, and someone's name. These are things you can start working on right away and that will help you tremendously.

Remember our easy-to-remember memorization process **SEE–LINK–GO!** First, find a way to **SEE** the thing you're trying to memorize in your mind as a picture. Then **LINK** it, or anchor it, to something you already know well. In this chapter, we will be looking at the Simple Association approaches. And finally, **GO!** Make that image really memorable, using all of your senses, your emotions, and some movement. Follow that simple three-step process and your memory will be unstoppable.

Some of the things we'll cover in this chapter may not seem like big-ticket items when it comes to improving memory, but you need to start somewhere, and I promise you that if you can stay on point memorizing these smaller things, it will pave the way for the more complex mnemonic strategies in later chapters.

SECTION 1 — PAYING ATTENTION

Let's face it: Forgetting sucks. What sucks even worse is when it feels like your brain is failing you. The thing is, it's usually not your brain's fault. As I said before, when you have a memory lapse, it doesn't mean your brain is failing you; it means *you've failed your brain*.

I'm not trying to mind-shame you here, just telling it like it is.

Think about it like this: You can't make dinner if you haven't stocked your pantry, and you can't remember anything long-term if you never even had it in your short-term memory.

Memory starts and ends with paying attention. There is no way around it. While your attention span is the most valuable mental resource at your disposal, you have only a limited supply of it. The good news is that although none of the techniques will make distractions go away entirely, the more you train your mind, the more alert you'll become as you take in new information. This is especially true when you start working on getting faster at memorization, which means reading things faster, picturing things faster, and making every split second count. Distractions will always crop up, but you'll get better and better at canceling those things out. The more you learn about memory techniques and the better you get at them, the more aware you become of your own memory, and in turn, the more you'll remember . . . to remember.

WHAT WAS I ABOUT TO DO?!

WHEN YOU WALK INTO A ROOM AND FORGET WHY

It's fairly common to walk into a room suddenly unsure of what you were about to do. Don't you hate when that happens?! I do. It's *such* a pain, and it drives me nuts. It also wastes my precious time as I stand there, tapping my forehead as if that will help the lost memory come to mind. Applying a technique to remedy this problem isn't always a surefire solution. But you'll find it's a *near*-surefire solution. One thing I will continuously harp on throughout this book is that having a good memory isn't *just* about tricks and techniques. Rather, *it's a way of life*. Let me explain.

The more you learn about how your memory works and how the techniques I will be teaching you take advantage of those workings, the better your memory will become. For one, because you'll be *using* your memory and strengthening that mnemonic muscle. But also because you will be thinking through the lens of a mind that *wants* and *chooses* to memorize things. This is a very powerful tool in itself. If memory is constantly on your mind, then meta-memory will constantly be on your mind as well (basically, thoughts about *how* you memorize something, not *just* the direct memory of something). If this is happening in your head (and by the time you get through most of this book, I promise you it will be), then memory lapses, such as walking into a room and forgetting what you were going to do, will happen less and less—for the sole reason that your memory will be

primed to keep things memorable. This is all a fancy way of saying that you will be *paying more attention* to the world.

Now if you're still itching for a little tip that might help you in the interim, keep on reading. To understand this tip, it helps to understand *why* walking into another room makes us forget things we thought of in a previous room.

Dr. G. A. Radvansky, a professor in the Department of Psychology at Notre Dame, published the results of his research on this exact phenomenon in a paper titled, "Walking through Doorways Causes Forgetting: Further Explorations."[1] What he discovered is that our brains tend to compartmentalize events or thoughts and attach them to a room or space—typically, the place where the thought was initially conceptualized. So when a person has a thought in one room and moves to another, the brain basically creates a file containing all the details about the first room, what you did there, and what you thought there, and stores it away. When you move to the second room, your brain creates a new file, making it harder to remember what was in the file for the previous room. This happens subconsciously, so there isn't any way that we can be aware of it and control it. But it is interesting to point out that you are more likely to remember something when you simply walk from one side of the room to the other, rather than walking through a doorway into an entirely new room!

So if this is what happens in our brains, what's the trick to remembering in these situations? It's as simple as going back to the previous room or place you were in when you had the thought you're trying to remember. This will work with limited success, but at least it's something. The *true* hack is what I mentioned before: Get to a point where memory is a way of life and your memory will naturally perform better. Or follow the advice of Dr. Radvansky himself: "Doorways are bad. Avoid them at all costs."

UH, WHAT WAS THAT, HONEY?

HOW TO REMEMBER THINGS SOMEONE ASKED YOU TO DO (MOST IMPORTANTLY YOUR SPOUSE)

You'd think that, as a memory champion, I'd be impervious to forgetfulness. Well, I'm not. And unfortunately, the forgetfulness I experience (it is rare, I should mention!) is often tied to things my wife says. This isn't intentional, of course; I love my wife and value anything she says immensely. It's just that sometimes I'm not *listening*. What else can I say? Nothing new or revolutionary here. I mean, I'm

not the first husband to say he wasn't listening to his wife, or vice versa, or the first person to zone out during a conversation with a friend.

So how do we prevent this from happening? How do you make sure that you remember the important things the person you're having a conversation with says to you? It starts with the obvious, which I mentioned earlier: *paying attention*.

Paying attention to something takes a concerted effort. Some of us are more prone to distractions: actual physical distractions in front of us or random monkey brain–type distractions that race across our minds. And while it may not be something we can control 100 percent of the time, there are tricks you can set your mind up for so that it is more likely to pay attention.

For one, if someone is talking to you, look him/her in the eyes. Try to maintain that eye contact during your conversation. Second, put away any distracting device. Put your phone in your pocket, close your laptop, put down your book. Don't do it half-assed—no lowering of phones but keeping them in hand, no looking up from a computer but keeping it open, you get the idea. *Commit* to the conversation. It's not that hard.

Nine times out of ten, you'll find that this will do the trick. If you're also in need of remembering the details of a conversation, whether your significant other is giving you instructions or you're on a date trying to learn about someone you fancy, here's what you do: As the words make their way into your ears, visualize them, as if they're in a movie that's playing right before your eyes. I like to think of it as an old-timey movie where the film strip is just a framed picture followed by another, zipping by horizontally. Of course, there is no movie *actually* playing in front of your eyes, you're just *visualizing* it in your mind's eye. You can't visualize each *frame—that's* too fast—but you can envision the general idea. If, for example, the person you're speaking with is telling you about where he/she grew up and this one time when he/she did this or that, actually imagine it. Let it wash over your mind as if it was an actual memory of your own. This method won't guarantee 100 percent of the details will stick, but you will have a better comprehension of the overall gist of what was said.

That's one instance, but what about instances where you actually have to remember specific details? Say you were given an instruction or fact to hold, what then? The previous technique still applies, except that after you visualize the instruction as an image, you then need to *anchor* it to something.

Now, *anchoring* is a term I will use a lot in this book, so let's define it here: ***Anchoring is when you associate one new incoming piece of information with another, already grounded piece of information.*** In other words, it's a form of *linking,* where you visualize a new piece of data and have it link to something that you already have firmly rooted in your brain (thus the anchor reference).

LET'S TRY ONE TOGETHER

EXAMPLE—You're talking to your boss and he/she says: "Make sure to take this document to FedEx and make one hundred copies."

Okay, from that statement, the two important facts gleaned are *FedEx* and *one hundred copies*. Visualizing yourself actually walking into FedEx and printing one hundred copies is a fine and helpful place to start, but let's say this is a do-or-die situation; your job is at stake if you screw this up. To make it stick better, you'll need to anchor it. Our anchor needs to be something that is already fixed in our mind, something that won't change, and something that is associated with the thing we are trying to memorize. A great choice for an anchor in this case would be your boss.

How about imagining taking your boss's head and slamming it into the copy machine one hundred times, resulting in one hundred copies? You wouldn't mind that, I bet. Although a bit aggressive, it gets the job done. Remember, imagery that goes a bit over the top, even if it's a bit gruesome, is like mnemonic wildfire. It will make things stick like glue.

See how we took an image of a copy machine and the number one hundred, and then attached them (or anchored them) to your boss? That simple process is called anchoring, and it will help you remember things like this on the fly.

SECTION 2 — PLACING THINGS AND DOING THINGS

Let's move on to things that are a little more difficult and that are (let's be honest here) a complete menace to our daily lives. I'm talking about things like forgetting where you parked your car, where you put your wallet, or if you took your daily medication or not. Just think, if you could eradicate these annoyances from your brain's daily mishaps, you'd be way less stressed, much happier, and more productive than you ever imagined!

In the previous section, we talked a lot about paying attention. Every memory technique I bring up from here on out will require that same intense focus, but now we will start to build on that very

fundamental necessity for a good memory. Then we'll add strategies that will allow us to memorize more, reliably and quickly—namely, using that **LINK** step to anchor information in our brains with some Simple Association.

ZONE B OR 6TH FLOOR?

HOW TO REMEMBER WHERE YOU PARKED YOUR CAR

Close your eyes and picture this all-too-familiar scene: You've just parked your car at the stadium, excited to see the match. People in jerseys are filing down the rows of cars toward the entry gates, some are grilling off the back ends of their trucks, the pregame excitement is palpable. About halfway down the parking lot, you remind yourself to look around and find the zone letter and/or number for where you parked your car. You see it and take a mental note of it, but you know all too well that you're going to end up spending a good twenty minutes trying to find the car once the game is over. Knowing this, you squint *extra* hard at the number, hoping that helps cement the information in your memory.

As predicted, the game ends and you set one foot into the parking lot and fail to remember that zone number you tried so hard to memorize. It wouldn't be so bad if the parking lot didn't look like it extended all the way to the ends of the universe!

I lived in a forty-story condo for a few years and it had seven levels of parking. If I was home early, I could snag a third- or fourth-floor spot, but if I arrived later, that meant an annoying sixth- or seventh-floor spot. The point is, the floor changed quite often. I can't tell you how many times I was in a rush the next morning, thinking I knew where my car was, only to walk around floor by floor until I found it where I least expected it to be (and that's not fun because that nice crisp and clean shirt I had on would suddenly be drenched in sweat). Curses!

This was before I studied memory techniques, so once I learned about them, I came up with my own little trick specifically for these situations. The first thing to remember is that you are now trained to be in the mindset that ***your memory matters!*** With that in mind, you need to be more present and in the moment. Before you exit your car, you need to remember to make a mental note of where you parked your car. This is first and foremost.

Applying our **SEE—LINK—GO!** mantra from chapter 2 (see this page), you first need to create an image for the floor number (or zone, level, letter, color, whatever). Then you have to **LINK** it (or anchor it)

to something (remember Simple Association from chapter 2, this page?). In this case, your car makes the most sense. So imagine the floor image stuffed or trapped inside your car or interacting with your car, and voilà, that parking spot location should be cemented in your memory!

LET'S TRY A FEW TOGETHER

EXAMPLE 1—4th Floor

One of the simplest ways to come up with an image for the number 4 is using the Number-Shape System (more on that in chapter 5, this page). In short, we need to come up with an image that the number 4 *looks* like. So I would ask myself, "What object does the number look like?" To me, a 4 looks a lot like the unfurled sail of a sailboat.

That's all it takes!

Now **GO!** Take that sail and stuff it in your car. Make it crash through the window; imagine all that salt water it carried in getting all over the upholstery of the car. Take it even further by imagining that a seagull was caught in the folded sail and now it's flapping all over, trapped in your car, wreaking havoc. Feathers and bird droppings *everywhere*. Unforgettable, right?

REMEMBERING WHERE YOU PARKED

The next day, when you're about to press that number in the elevator to get to your car, you'll have no choice but to see that crazy sail messing up the inside of your car.

4TH FLOOR, PLEASE!

EXAMPLE 2—Zone B

Letters are easy. Just choose a random, memorable word that starts with the letter and use that as your image. When I see the letter B, the first word that comes to mind is *bread*. Your car has now become a full-fledged baker's oven! Imagine your car filled with bread being baked, filling up your car with a delicious smell, churning out loaf after loaf. Umm . . . delicious!

Oh, and Zone B was where we parked the car, of course.

PRO TIP

Some of you may be thinking, "This would be fine if I parked my car once every so often. What about when I park my car multiple times a day? Won't these images clash against each other and I'll end up confused?" Yes, that's possible. The point is to make it unique for every instance. You can do that by elaborating on your image in a more pertinent way (something that relates to your day or what you're currently doing). Let's say it's my third time parking in the 4th floor parking spot from Example 1. Let's also say that I've already parked on two other floors earlier that day. I would still imagine that sail, but I'd tie it to something I just did or am about to do. Maybe I just got home for the night and that's the end of my day—I'm about to go eat dinner. Find a way to relate that sail in your car to dinner. How about this: Your dinner is actually wrapped (like a burrito) in that sail when you throw it into your car? It's as simple as that!

EXAMPLE 3—Red Floor

Sometimes parking zones are distinguished just by colors. No worries—think of something that the color reminds you of (and of course, don't forget to go with things that are way over the top). When I think of red, I think of ketchup. It's smeared *all over the inside of your car* and is dripping everywhere. This scenario is most likely a really bad situation for you if that were the truth, but hey, now you have nearly unlimited scoops of that delicious condiment for your lunch!

PRO TIP

This is a bit obvious, but it helps reduce the amount of times you need to memorize your parking spot: Whenever you can, park your car in the same place or area. That way you know where your car is typically and you don't have to memorize it. You only need to memorize it when it's not on that default floor.

EXAMPLE 4—R 21

Okay, now they're really trying to make sure you forget your parking spot! But no worries, simply combine what we have learned in the previous examples and create one mega-image. As in Example 2, since there is a letter, I will pick a word beginning with *R*.

Let's go with rhinoceros.

Maybe it's trickier to come up with an image that looks like 21, a two-digit number (using the Number-Shape System I mentioned in Example 1), but why not just try to find it a meaning—one that you create—and relate it to the Rhino. Maybe the Rhino is 21 years old and has just had his birthday! Now place that image inside the car as with the rest. This situation is really no different from the others, just a little more effort goes into coming up with the linked image.

Of course, there will be situations where some buffoon decided that more complex parking location numbers were a great idea, and you'll be there staring at it like *how on earth am I supposed to memorize this?!* But no worries, as we move on to more complex systems for numbers and codes in later chapters, you'll be a pro at handling even the most complicated parking garages.

WHERE DID I PUT MY KEYS?

HOW TO REMEMBER WHERE YOU LEFT ANY ITEM

It always happens when you're in a massive rush, right when you're about to head out the door. "WHERE ARE MY KEYS?!?!" you silently rage at yourself, frustrated that you've yet again forgotten something so elementary as where you placed the keys you use every . . . single . . . day. Ugh. Don't worry. This is normal and it doesn't mean your memory is slipping away. You still have hope! The reason you forget where you place your keys (or your wallet, or your phone) is because you probably:

1. **Put them down in a rush when your mind was focused on**

something else, on a more pressing task.

2. **Put them down in a place where they typically aren't placed, thus making them harder to locate in your mind when you're trying to remember.**

The quickest and most *obvious* solution (and this is so simple, you'll laugh at me for even suggesting it) is to make sure you have a designated place to put an item every time you put it down.

You have to understand that for something as minute as putting down a single item, our brains couldn't care less. Think about it. What's more important, tossing your keys down on the couch or making sure to walk your dog who is whining and begging to be let out *immediately*?

Yeah . . . the dog, of course. Or tending to your baby, or getting your work done and answering your emails, or cooking dinner, or getting ready for a date, etc. So we should *anticipate* that our brains are not paying attention to where we leave the item in the first place. And if we *can* anticipate it, then we need to hijack our memory, providing it with a little crutch to help make that placement unforgettable.

That crutch is a designated placement spot. Buy a small bowl or tray and place it by the front door. Get in the habit of always placing your keys there when you come home. Same with your wallet or backpack or bills. Whatever it may be: Create a designated placement spot and always put the item there. In addition, make sure that that spot is *in your way* whenever you enter the location where you plan on leaving the item. Make it so obvious a place that your brain has no choice but to see it and place the item there.

Using a designated placement spot is the quickest and easiest hack and probably takes care of 80 percent of cases. But what about the rest of the time? Sure, it's super common to find yourself in a situation that isn't so habit-friendly. For those cases, we can use a technique I like to call the Move It or Lose It Method.

The technique asks that before (or *as*) you put the item down, you literally *make a move*. Perform an action as you place it. By "action," I mean any random movement that comes to mind—the stranger, the better (and the more memorable, of course). By doing something so out of the norm, you're basically sending a warning to your brain, causing it to be hyperalert about that particular moment in time, making it easier to remember later on. When you are searching for those lost keys in the future, you'll remember the associated bizarre action you performed as you put them down, which will also trigger

an association with where you performed the action, leading you to remember where you placed the keys. *Boom.*

EXAMPLE 1—Tossing the keys on the couch.

Before I toss those keys on the couch, I might take the keys that are currently in my hand and lightly tap myself on the head with them and *then* toss them. That out-of-the-ordinary movement of tapping yourself on the head (with the keys themselves, even!) will be a memorable snapshot in time to help you in the future. When you think back on where you were when you placed your keys, you'll remember that memory of tapping yourself on the head before throwing them on the couch.

AHA, THE COUCH!

KEYS. FOUND.

PRO TIP

Now, am I asking you to do some silly movement every single time you move something or put something down? No, that would be crazy! But do it for things that are important and that you constantly find yourself losing. Over time, as you get better at this whole memorizing thing, you will get better at being more aware of your memory and how it's designed to work. Once you've tapped into that, you'll find that a lot of the tips I'm giving you will come naturally with very little effort!

EXAMPLE 2—Placing your wallet in your purse or bag.

Again, right as I placed the wallet in my bag, I would take a brief second to perform some out-of-the-norm action. I'm just throwing out random ideas here (honestly, the best actions are going to be the random ones you come up with in that moment), but maybe I'd tug on my ear and scrunch my nose.

There you have it. As simple as that.

I know you may be thinking, "Nelson, this is ridiculous." And you're right. It is ridiculous. But that's just the point. Ridiculousness helps memory. Why not take advantage of it?

There will be times when you're in a public place and maybe it's a bit uncomfortable to tug your ear and scrunch your nose. I get it. But there are an infinite amount of actions you could perform, and many of them are way more discreet than those that I suggested. So there is no excuse. Go out there and make some ridiculousness to help your memory!

This technique works best for things that you typically do *a lot* in your everyday life. Things that you might characterize as the repetitive chores you do on a consistent basis. You pay your rent monthly, you wash yourself in the shower every day (gosh, I hope so), you take a pill every day (maybe not, but you get what I mean). It's not so much that you'll forget to do any of these things; rather, it's that you'll forget whether you've already done them or not. This is because all the memories of you doing those things will bleed together since they were all so unoriginal. When you step aside to give them an original quality, you suddenly cause each to pop out from the rest, thus making each one memorable.

PRO TIP

It's easy to set a reminder on your mobile device to help you remember some of these things, I'll give you that. But there are situations where it's just not feasible to access your phone. On top of that, you're not using your brain. Remember what I said earlier—we want to get you into a place where memory is constantly on your mind. The more you use your memory, the better it will naturally be.

MUST. NOT. FORGET. TOMORROW . . . ZZZZZZZZ

HOW TO REMEMBER THINGS WHEN YOU DON'T WANT TO GET UP AND WRITE THEM DOWN

A good reminder is all about creating a defense against letting yourself forget. That means knowing how to get your own attention when it counts. Say I'm headed to a birthday party the next time I leave my house, and I need to bring my friend's gift with me. I think about Future Nelson and how absentminded that guy is, and I think about idiot-proofing for him. I make it impossible for myself to forget —if I can't stop my mind from ignoring the gift, I can stop my body. I put it on the floor, directly in my path to the front door. Once I put it there, it's as if I've time-shifted the remembering. Future Nelson doesn't need to remember, because Present Nelson already did.

If you prefer to tie a string around your finger or write a note on your hand, those can be good reminders. But even better is a method I like to call the Throw the Pen Method. This method works best when you're in a compromised position and need to make sure your future self remembers something. By compromised position, I mean in a situation where you can't tie that string around your finger or write

that note on your hand (or, more of a *tsk-tsk* behavior, jot it down in your phone), such as when you're in the shower, in bed about to go to sleep, on an important call, etc.

It works the best for me when I'm in bed ready to doze off, when all of a sudden I remember I need to do something the next day. Rather than get up out of bed, I grab something (usually a pen, but any throwable, not-too-breakable object at hand will do) off my bedside table and toss it on the floor. Then I come up with an image for the thing I need to remember and **LINK** it to the item. When morning comes and I run into this item, so blatantly disrupting the cleanliness of my floor, I'm reminded of the image of the thing I needed to do! As long as you're placing some obvious clue in a place where you will definitely encounter it at a future time, and as long as you link an image to that clue object, the method works.

LET'S TRY A FEW TOGETHER

EXAMPLE 1—Email Chip first thing when you get out of the shower.

Chip is an important guy, and he's been on your to-do list of people to get back to, but you forgot to do it yesterday and now it's even more pressing. What's worse is that you're in the shower, getting ready for work, when it suddenly hits you. You *have* to email him back pronto. Obviously, you're in the shower, doing your scrubby-scrubby business, so you can't write and send off that email at that very moment. But you want to remember to do it first thing after getting out of the shower. If you're at the tail end of your shower, then no problem, just get out, towel off, and write that email. But let's say you just turned on the water. You're already soaked. You still have to soap up, wash your hair, and shave. It's easy to lose track of thoughts like that in the shower, with your mind wandering to and fro, so you decide to apply the Throw the Pen Method and be done with it (until you get of the shower).

You see an old razor casing resting on the edge of your bathtub, so you grab it and toss it onto the bathroom floor outside the shower. Next you quickly come up with an image for emailing Chip, and anchor it to the razor case. For the image, you might just consider whatever the email is supposed to address and somehow relate it to an image for Chip (potato chip, perhaps?). Let's say it's about an estimate on some printing material he needed to get to you. In that case you would just imagine the razor case as an actual printer, printing out dozens upon dozens of potato chips, cluttering up the

entire wet and steamy bathroom floor.

EXAMPLE 2—I need to mail my rent check tomorrow.
Let's say you're in bed after a busy day of work, and you've mentally thrown in the towel. Time to relax and doze off. But suddenly, that monkey brain of yours meanders off and remembers that the rent is due tomorrow. You don't want to get up out of bed and write the check, seal it in an envelope, and get it ready to mail out, so rather than hoping you'll remember in the morning as you rush to get to work on time, you apply the Throw the Pen Method. You reach to your bedside table and grab a book you have sitting there. You toss it on the ground by the side of your bed and then you focus on coming up with an image for "paying the rent" that you associate with (or anchor to) the book. You think of opening that book and inside (maybe even as a bookmark) you magically find a check worth so much money that you wouldn't have to pay rent *ever again*! Just picture that image. Make sure to add all the peripheral emotions and color that come with that scenario. How would you feel? Imagine actually holding the check in your hands. This level of detail will make that image pop. So when you wake up in the morning and walk across the book on the floor, you won't be able to forget the rent check!

PRO TIP

If there's nothing at your disposal to "throw," and you just need to hold on to that memory for a few more minutes (maybe you're just being temporarily distracted, like by a conversation, for example), a quick thing to do is to cross your fingers, or cross your feet, or move some body part slightly. Something that's maybe a bit uncomfortable or weird that will draw attention from your mind, even after the conversation is over. Once you're free again, that oddly placed body part will remind you to do what you had thought about during the conversation.

SECTION 3 — NAMES AND FACES

Remember that a person's name is to that person the sweetest and most important sound in any language.

—DALE CARNEGIE[†]

There's an epidemic sweeping across the globe and laying waste to every human brain in its path. I know it's out there, because everywhere I go, I hear people tell me the exact same story: "I'm great at remembering faces—I never forget the face of someone I've met—but I'm terrible with names!" It's everywhere, it's debilitating, and it's about time you learned how to cure yourself of it.

NICE TO MEET YOU, I ALREADY FORGOT YOU . . .

HOW TO REMEMBER FIRST NAMES

Here's the thing: No one is actually terrible with names. The main reason we think we are is because we feel that we *should* be able to remember names—and when we can't remember a name, it *hurts*. You see a person walking toward you and you think, "Hey! I know her! I know her face, I know she's from St. Louis, and I know that she loves sea turtles and '80s music, but *what the heck is her name?!?! Aaaarrrrggghhhhhhh."* You hide a grimace beneath a painfully forced smile. If you know a person, it seems only logical to know the number one piece of information that identifies him or her in the human world: his or her name.

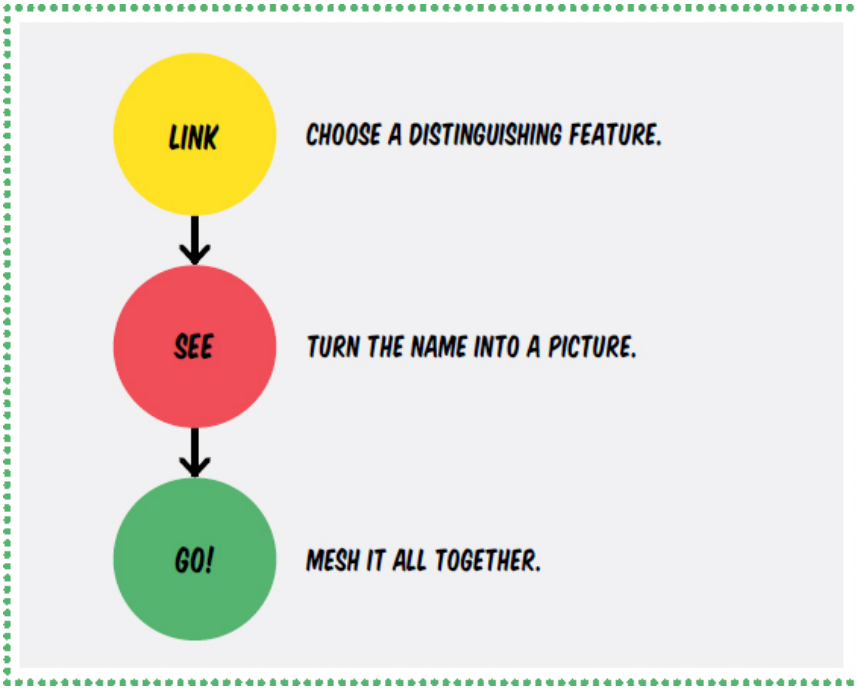
Since we can't remember names very well but feel that we ought to, we make up excuses—or sigh and say we suck at it. And if we think we downright suck at something, we ideally should work to get better at it, not just tell everyone we're bad at it . . .

The first thing to do is easy: ***Try a little harder.*** Seriously, just try. If you and your friends go to a party and make a game out of who can remember the most people's names by the end of the night, you'll be surprised at how well you'll do (especially if you're really competitive or if you put something of value on the line to make it interesting).

If you really want to win that game, though, all you need to do is follow the **SEE—LINK—GO!** process, albeit with a slight twist. In this case, since remembering someone's name usually happens in public with reputations possibly on the line, you'll need to be able to do this on the fly, and that means needing to choose a location or **LINK** before you **SEE**. (I promise this is the only time I'll switch this up on you! You'll understand soon why it's important.)

LINK

To store a name, you need only one anchor point, and you need it to be a cue that will lead you to the name whenever you see that person. Kinda sounds like a mix of a few of the **LINK** strategies I outlined in chapter 2, this page, right? Before deciding on one of them, let me ask you something: What's the one thing you're guaranteed to see every time you encounter someone? That's right, his or her face. Remember how I preached that **LINK** is all about using things you already know to remember new things? Well, a new person's face is the very thing you will know the next time you see the person. We may be horrible at names, but we are naturally good at recognizing faces, so let's use that to our advantage.



As I said before, speed is of the essence when it comes to this process. You want to have an attribute picked out by the time you hear the person's name, so you can then store it right away. The attribute you pick as your anchor should be the first thing you notice about someone, since it will probably be the first thing you'll notice the next few times you see that person. What we're trying to do here is minimize the amount of time and effort. Picking an attribute is easy if you meet someone with a huge, witch-like nose or a hairy mole. For a generic face, it may be that you just take some minor characteristic like a slightly cleft chin or a tiny wrinkle and then blow it out of proportion when you visualize it. If the first thing that catches your eye is a crazy hairdo, a Hawaiian shirt, a pair of cat-eye glasses, or anything else style-related, you can use it as your anchor—but beware: People don't always retain the same look.* If you can't spot the anchor, you'll have a harder time recalling the name that's associated with it. Unless an introduction unfolds so quickly that the only thing you catch is the person's style or fashion sense, it's better to go with something more permanent (barring any plastic surgery between your encounters).

Sometimes you'll be introduced to ten people all at once, and sometimes half of them will have big noses. You might be tempted to look for attributes that are unique to each person, but you won't have

time to think that much. If everyone in the room has a huge nose, so be it. The unique part will be the concept you use for each person's name, and you'll picture each person's face along with it.

Now, I'm about to tell you something important, so forgive me in advance for shouting it. No matter what you do, no matter who asks, no matter how proud you feel for mastering this technique, DO NOT TELL A PERSON HIS OR HER ANCHOR ATTRIBUTE. From personal experience, I can assure you that, no matter what, this is a terrible idea. Even when you think you're being slick and explaining the technique to the person with the beautiful eyes, the person with the unibrow will inevitably jump in and ask, "What attribute did you use for me?" Just . . . don't.

Don't get frustrated if at first you struggle to choose an attribute on someone with a generic face. It may be hard to find some tiny, barely noticeable feature to use, but everyone has *something* you can grab onto, and with a bit of practice you'll get better at it.

SEE

Attention is key when it comes to catching someone's name and giving yourself a chance to encode and store it. In a typical social setting, as well as many business settings, you can easily be caught off guard by an introduction. Sometimes new acquaintances will tell you their name and then jump straight into conversation. If you're not ready to use your working (short-term) memory to keep a name in mind while you try to create a memorable mental image, the name will be gone by the time you realize it would be useful to remember.

Once you're focused and ready for any meet-and-greet situation that comes your way, you can get a jump on visualizing.

Here's your moment: the big handshake. You're focused, you've got your attribute all picked out, you're ready for that name, and now you simply need to hear it. Whenever possible, try to ask people for their names (it'll add to your focus factor), or, if they come right out and tell you, repeat the name back to make sure you heard it correctly. The more often and more clearly you hear the name, the easier it will be to memorize.

Whatever you do, make sure you're 100 percent clear on the name. I don't know why, but for some reason people find it more embarrassing to ask for a name a second or third time than to forget the name completely and be forced to address somebody with "Hey, guy" or "What's up, man" for eternity. Ask for the name as many times as you need to, and don't be afraid to ask to have it spelled out

if that will help.

Now that you've got the name, it's time to turn it into a concept that can be visualized easily. In some cases, the name will be a recognizable word, or very close to it (e.g., Brian = brain, Liz = lizard). In others, it will remind you of someone you're familiar with or sound like some concrete thing (e.g., Bill could be Bill Clinton or a dollar bill). Those types are easy to work with, and you should have no problems visualizing them. But sometimes you get a name such as Shannon, that doesn't sound like anything or immediately associate with anything.

Shannon might make you think of Ireland, or maybe Del Shannon, the singer of the 1961 hit "Runaway." But both of those are terrible concepts for remembering names, because they could potentially remind you of *too many* names. If you picture Ireland or someone running away, you could just as easily come up with a name like Kelly or Sean or Del or Julia (as in Julia Roberts in *Runaway Bride*).

PRO TIP

Whether you do it to solidify what you've learned or to flaunt your newfound name-remembering prowess, put that name to use. You can go over it in your head, or you can use it in conversation. You could ask a question and lead with the name ("Tell me, Shannon: What do you do for a living?"), or you could introduce the person to someone else ("Shannon, meet Shane"). When you leave, try to picture the people you met, along with the mental images that apply to each, and review their names. If I meet someone in a business setting and take his/her card, I like to use a little trick recommended by Dale Carnegie in *How to Win Friends & Influence People:* On the back, write down a little bit of information—anything that came up in conversation that you'd like to be able to reference the next time you meet. It not only makes you seem like a memory master, it also makes you appear genuinely, endearingly interested in that person.

Don't get yourself all twisted around with those kinds of associations. Make things easy for yourself. Instead of thinking about the whole word, break it down into syllables and create a concept around what those syllables sound like. For instance, "Shannon" breaks down into "Shan" and "on." "Shan" sounds like "shine," so "Shannon" = "shine on." Unlike a vague association such as "Ireland," "shine on" can't possibly be mistaken for any other name

(except maybe Shane, but you can most likely tell the difference between a Shane and a Shannon without the help of mnemonics).

There may be several ways to visualize "shine on"—it could be Shannon shining a flashlight on her face, a blinding spotlight shining on Shannon, Shannon shining a lantern in a cave, or Shannon's face as the sun, shining down on the Earth with powerful beams of light.

GO!

Now you're chatting away with Shannon, and if you're on top of your name game, it's taken you roughly ten seconds to **LINK** and **SEE**. But you've still got to make the whole image memorable by meshing it all together and adding that magical memorable sauce. This last step may be the most important one, because this will be the mental image you call upon when you need to remember the name later—whether that's in a few minutes or a few years down the line.

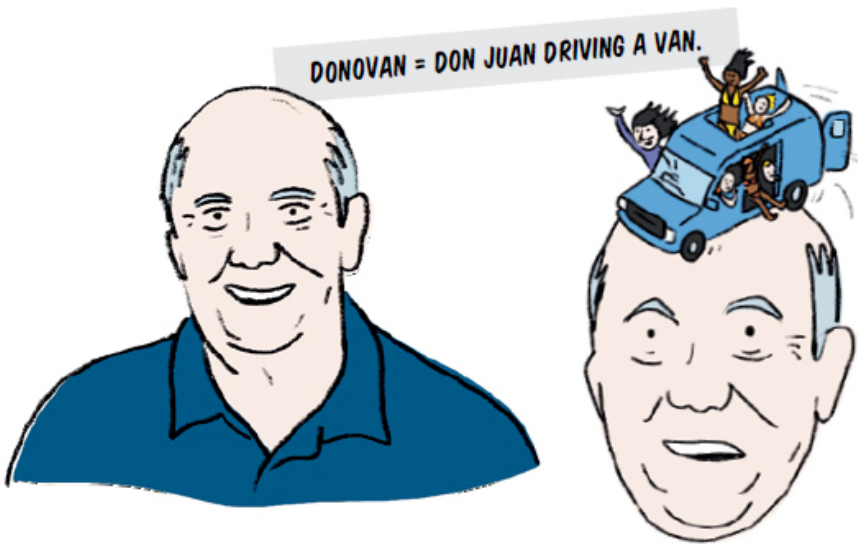
Let's say Shannon's most prominent facial feature is her round cheeks. Your visual scene could be Shannon up on stage with two spotlights shining on her, each one lighting up a cheek; or it could be Shannon's face in the sky where the sun ought to be, smiling cartoonishly so that her cheeks puff up (the sun on the Kellogg's Raisin Bran box comes to mind here), with rays of light streaming out of her cheeks and shining down on some anonymous sunbathers on the beach. (Don't forget those are some red-hot rays, so make 'em sizzle.)

LET'S TRY A FEW TOGETHER

EXAMPLE 1—Donovan

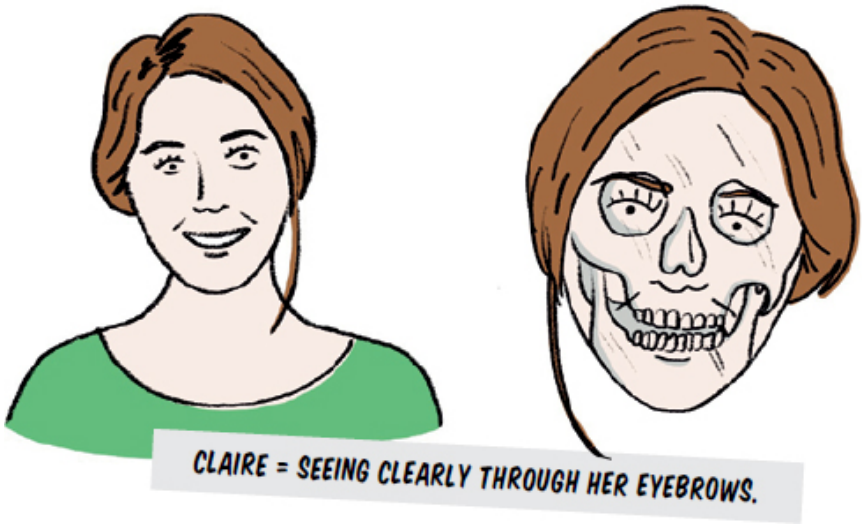
Are you focused? You should be, since that's always the first step. You don't need blinders and earplugs, but if anything is distracting you right now, try to block it out. Next we choose a distinguishing feature. Go with your instinct here (though the first thing that jumps out at me is this man's bald head, and I can only assume that's what you've noticed too). Now let's conceptualize his name. Donovan reminds me of nothing offhand, so let's break it down: Don-o-van. Don makes me think of Don Juan, the legendary ladies' man. Van makes me think of, well, a van. So my image would be Don Juan driving a van. Not just any van, though—it's filled with pretty ladies who he's seduced. Now let's anchor that image with his bald head. I would picture that packed van driving all over his bald head. That's the simple

explanation, but I would also add more depth to that image, such as some reason why he's driving around on that particular area. Maybe because it's smooth and he can just set the car on autopilot and take care of some . . . ahem . . . business. Think of the sound that van is making, or better yet, the sounds coming from inside that van . . . okay, enough! Get your head out of the gutter (just kidding, don't!). And . . . we're done. And in need of a cold shower—but we've remembered his name!



EXAMPLE 2—Claire

Alright, Claire . . . why are you so pretty and plain? Sometimes it's not so obvious what to choose as an anchor because some people might not have any particularly distinctive facial feature. But she's got pretty eyebrows, right? I might latch onto something like that in this situation. Ultimately it doesn't matter; choose something you notice—anything—and stick with it. The name "Claire" reminds me of the word "clear." This is going to be a bit of stretch here, but sometimes that's what we need to do: I'm going to imagine that her eyebrows are so widely spaced (which they kind of are) that I can *clearly* see behind them. Taking it even further, I might imagine that as I look past her luscious eyebrows, I can see directly *through* her *clear* head!



There you have it. That's how this process works in my head when I'm trying to remember a roomful of people or set a new Names & Faces record in a memory competition. I know most of that might have seemed totally bizarre and preposterous, but it works: I once remembered all the names in a room of one hundred people in under ten minutes! If you're comfortable with the technique but worried that you may not be able to do it quickly, don't fret! All it takes is a bit of practice to build speed. The more you do it, the easier and quicker it will become. Whenever you're out and about meeting new people, treat it as an opportunity to practice memorizing names and just do it, because memorizing names is something anyone can do.

MR. AND MRS. SO-AND-SO? HAVE HOW MANY KIDS AGAIN?

HOW TO REMEMBER LAST NAMES (AND OTHER INFO)

Once you've gotten the hang of applying the memorization process to first names, you can start adding last names to the mix when necessary. And once you've added the last name, you can start adding other information as well (hobbies, shared interests, any tidbit that may have come up in conversation that you may want to hold on to).

To add a last name, you need a second concept distinct from the first name, which you then link together using the Linking Method described in chapter 2, this page. If Shannon's (remember Shannon from this page?) last name is Carboni, you can break that down into "Carb"—a bowl of carb-laden pasta—and "oni"—sounds a bit like

"only." Imagine Shannon's face is the sun with rays shining out of her cheeks onto something, but more specifically, onto that bowl of pasta, and ONLY that bowl of pasta. SHINING ON CARBS ONLY! Or perhaps Shannon is on stage with spotlights shining on her cheeks, and she walks across the stage and sees a bowl of pasta amid a variety of other foods. She scarfs down the pasta in its entirety but doesn't even touch any of the other food. She eats the CARBS ONLY. Get the idea? It's just taking that first image you anchored to the person's distinguishing feature (the first name, in this case) and *linking* more information to it into some cohesive narrative. That's it! Just remember: Don't tell Shannon she shouldn't be eating so many carbs!

If you want, you can take this method even further. To add even *more* information about any given person, approach it with the same process. For example, imagine you're meeting someone very important, and you want to remember not only his first and last names but also the fact that he loves to play golf (which might come in handy when trying to charm him later). You come up with images for his names as usual, then link them together in a little story. Now take the extra information you want to remember and turn that (or those) thing(s) into images as well, and link them all to the images you've created for the names. Essentially, you're weaving together a (linked) story that will be entirely anchored on the person's distinguishing feature. Obviously, the more information you want to store, the more involved the process becomes. It's really just a matter of focus and spending the time to set those images in your mind.

LET'S TRY A FEW TOGETHER

EXAMPLE 1—Peter Bond

This guy has a pretty serious dimple on his cheek, so I'm naturally drawn to that feature. Next, since "Peter" reminds me of Peter Griffin from *Family Guy* and Bond reminds me of James Bond, my image is going to be of Peter Griffin dressed in a tuxedo (that doesn't really fit his overweight physique) and holding a Walther PPK pistol, pretending to be James Bond. "The name's Bond, Peter Bond," he says in his New England accent. Now let's attach it to that dimple. I'm going to imagine Peter Bond in the intro to a James Bond film, where he walks into the middle of the barrel, turns, and takes a shot, painting the screen red with blood. Only that shot is going to hit our new friend right in that dimple. Don't forget to add as much detail as you can to that image. And that Bond theme better be playing in your head as you visualize it!

EXAMPLE 2—Patrick McDougall who is a huge hockey fan. Patrick has a smooth forehead. That's going to be my feature! Patrick always reminds me of the action of *pat*ting something down. McDougall makes me think of some kind of McDonald's burger but instead of regular beef, it's dog meat (Doug = dog), so it's a McDog (McDoug). The "all" part at the end doesn't trouble me; I trust my memory enough to think I can recover that bit after I recall the rest. Alright, let's anchor it as his feature. Picture a dozen dogs sandwiched in between burger buns resting on his forehead. To your horror, those dogs are still alive. Don't eat them! Just *pat* them gently on their buns.

That takes care of the first and last name, but remember that in this example we also want to remember that Patrick McDougall is a big hockey fan. Before we link a new image to the narrative, it's important to note that we want to keep things in sequence here. The first image would be his first name, which links to the second—his last name—and then anything after that will be factual information about the person. I stress this because as we link this new image about hockey to the dogs in a burger bun, you need to make sure the hockey image comes somewhere *after* the whole patting situation. That way, we don't confuse anything and you won't think that his first or last name is hockey, or sounds like something close to hockey.

Okay! So the simplest image I would think of is someone swinging a hockey stick (action images are great, remember?). After we see the dozens of dogs sandwiched in burger buns on his forehead, which we previously patted, we *then* grab a hockey stick and whack them off into the distance. A bit harsh, but those actions . . . oh ho ho! Boy, do they stick!

PRO TIP

Names are hard, I'll be the first to admit it. Don't get frustrated when you try this method and still forget the occasional name. I promise that with practice it will get better. The important thing is to make the effort. Go to a party with the goal in mind to memorize, say, ten people's names. What have you got to lose anyway?

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* Samuel Johnson was an eighteenth-century English writer. This quote is from "Memory Rarely Deficient," number 74 of 103 essays he wrote and published between 1758 and 1760. More notably these days, a painted portrait of Johnson is used for memes that require conveying extreme confusion when reading something, aptly named the "What the fuck am I reading?" meme. Google it for a few memorable chuckles.

† From Dale Carnegie's famous book, *How to Win Friends & Influence People* (New York: Simon & Schuster, 1936).

* You're probably asking, "What about beards?" On the one hand, beards get shorn all the time. On the other, they tend to cover up most other

facial features, so it's hard not to use them as anchors. Basically, guys who grow beards and then shave them deserve to have their names forgotten—and maybe they prefer it that way. KIDDING. Just use their beard as an attribute and hope for the best.

CHAPTER FOUR

For All the List-Based Things That Your Mind Wishes It Could Remember Forward and Backward

I consider that a man's brain originally is like a little empty attic, and you have to stock it with such furniture as you choose. . . . The skilful workman is very careful indeed as to what he takes into his brain-attic.

—SHERLOCK HOLMES*

Memory storage is like real estate: It's all about location, location, location. I'll spare you the messy details about hippocampuses and semantic matrices, and put it this way: Your mind is like a desk littered with all kinds of documents and supplies. Those things pile up over time, but no matter how messy the desk gets, it's never too hard to find the last thing you put on it—it's right on top. But that phone bill from last June? It's buried somewhere in the darkest depths of that ocean of paper, and it'll take a serious search operation to unearth it—unless you filed it in an appropriate (and accessible) folder, or color-coded it, or folded it into an origami swan and put it on a shelf for display.

You don't need to turn all your memories into origami swans. If you did that, it would be a lot like turning every paper on your desk into a swan—very time-consuming to create, and even more time-consuming to unfold one at a time until you came across the right one. What you need is a simple, well-marked filing system. And the way to file memories properly, the way to put the right information in the right location, is to create the right associations.

Remember **SEE–LINK–GO!**? Of course you do, you mnemonic wizard, you. In chapter 3, we mainly discussed the very simple memory-use cases of **SEE–LINK–GO!**, focusing on the Simple Association approach for the **LINK** step (see this page).

We've got the **SEE**ing part down: coming up with an outrageous image for whatever it is we're memorizing. But it turns out there's a lot further we can go with the **LINK** part. In this chapter, we're going to get more sophisticated with this step in particular, which is really

all about one thing—storage. I'll be showing you how to use some fancy strategies to **LINK** information that is presented to you specifically in the form of a sequence or list. In the previous chapter, most of the things we tackled were one-off bits of information or just simple, single thoughts. Expanding from that, we're going to grow your mnemonic strength so that you can memorize large amounts of information in one go and retain it for a long time!

Before we dive in, though, what am I really talking about when I say *storage*? Storage? In my brain? Yep! In chapter 2 (see this page), I brought up the analogy between our brains and a computer and how when you save something, you need to specify a file name as well as a folder/location to store the thing you're saving, otherwise you're in deep trouble. We need to approach our mnemonic storage in a similar way, saving everything we can with enough detail so that we can find it later without a hiccup. Having such mastery over where memories are stored in your brain sounds like a thing right out of a science fiction movie, I know. You might even be thinking to yourself, "There is NO way I will figure out how to pinpoint a specific location where a memory sits inside my brain." But you can, and it's easy. Let's get started.

SECTION 1 — THE LINKING METHOD

In many situations, you may find yourself having to memorize large sets of information, not just one thing here and there. Now check this out: In the same way we took the one thing we had to remember and associated it with something else (**LINK**ed it), what if, as we add more pieces of information to the set, we associate each subsequent thing with the previous one, creating one unbreakable chain of images?

This is the Linking Method.

In short, all you need to remember about the method is that when you have a list of things to remember, start with the first thing, **SEE** it, then **LINK** it to the next. Repeat this process for each item on your list until you've gone through them all. Then, when you want to remember your list, simply start at the first item in your mind, and, provided your chain is strong and memorable, the whole list will cascade back into memory, one by one. The best way to understand what I mean is to follow along with a satisfying example. Watch me.

WHO CUT DOWN THE CHERRY TREE?

HOW TO REMEMBER THE U.S. PRESIDENTS IN ORDER

Whether it was all the English kings and queens, the Chinese dynasties, or the U.S. presidents, you undoubtedly at one point in your school years had to commit a challenging historical list to memory. After countless hours of studying, then having your parents drill you, you took a test on it at school, only to forget it all as quickly as you wrote everything down on said test. The whole process most likely left you exhausted and fed up with your memory. It's not fair, because had you been given just a bit of proper memory guidance, you might actually have enjoyed the process of memorizing that list. Not only would it have taken way less time to memorize, it would have been fun too!

Let's put those bad memory memories aside and learn how to use the Linking Method. I promise it will change how you approach memorizing large amounts of information forever! Using the Linking Method, we can commit a sizable list, like the U.S. presidents, to memory in one sitting of less than fifteen minutes (yes, seriously). Normally, memorizing the U.S. presidents would seem like an arduous task—forty-five names in all—but by using this simple technique, they can be learned quickly and without much effort.

Let's start with the first fifteen presidents. (If you want to do all forty-five, just refer to just refer to my website www.nelsondellis.com/memorize-the-presidents for the rest of the explanation.) First I'll help you visualize the chain of images that will represent our images (i.e., the presidents). Instead of worrying about who or what is linked to what, I just want you to sit back, relax, and read the little narrative I'm about to share. The only thing I ask of you is to take it all in and *visualize* each little scene as best as you can. Got it?

A last few tidbits: We'll be memorizing fifteen U.S. presidents, each of whom have a first, middle, and last name. But we're going to focus on the last names first. Any extra information you might want to add afterward can be done once the main linked list is set in your mind. (I'll show you an example or two when we're finished, but it'll be similar to how we memorized names and facts about a person on this page.) Once that main linked list is set, you can add the full name and any other fact you want to recall. Also, as you read through this story, if you're unsure of why an image represents a president, just refer to the list of the images and the reasoning behind them on this page.

So where do we begin? With Washington, of course. *So let's start by picturing a* ***WASHING MACHINE (WASHINGTON)*** *washing a ton of*

bright-green Granny Smith ***APPLES (ADAMS)****. Along comes a chubby* ***CHEF (JEFFERSON)*** *who takes the apples out of the washing machine and puts on a* ***MAID****'s uniform* ***(MADISON)****. He then gets inside a rowboat and starts rowing; he is a* ***MAN ROWING (MONROE)****. As the chef in a maid's costume rows downstream, he sees something off in the distance.* ***SQUINTING*** *to see what it is, he sees a* ***DAM (QUINCY ADAMS)****. On top of the dam is* ***MICHAEL JACKSON (JACKSON)*** *doing the moonwalk and grabbing his crotch, SHAM-OWNNN! A* ***BURNING VAN (VAN BUREN)*** *comes out of nowhere and slams into him; water spurts everywhere, splattering on an innocent bystander who happens to be* ***HARRISON FORD (HARRISON)****, who is in the middle of tying his* ***NECKTIE (TYLER)****. The necktie comes alive and starts* ***POKING (POLK)*** *Harrison Ford in the face. In fact, the necktie pokes him so hard that a* ***TAIL (TAYLOR)*** *pops out of his rear end. Since this is all pretty weird, a* ***FILMER (FILLMORE)*** *begins to document the whole charade on film. But, by accident, the camera that the filmer is using happens to explode, and shrapnel from the camera* ***PIERCES (PIERCE)*** *the back of a cannon lying off to the side of the dam. This lights the fuse of the cannon, causing it to fire and launch a bunch of* ***BOOK-SHAPED CANNONBALLS (BUCHANAN)****, BOOM!*

THE FIRST 15 PRESIDENTS OF THE UNITED STATES AS A MEMORABLE LINKED STORY

I know it's the silliest story ever and might seem overwhelming at first, but reread it and really try to visualize it. I guarantee that if you close your eyes and try to retell the story after only one or two read-throughs, you'll have it memorized. Amazing! Isn't it incredible how our brains just absorb that kind of narrative-based, bizarre stuff right up? Below is the list of images for each president:

WASHINGTON	*WASHING MACHINE*	*1*
ADAMS	*ADAMS (AS IN ADAM'S APPLES)*	*2*
JEFFERSON	*JEFFER-SON (JEFF-ERSON)*	*3*
MADISON	*MADI-SON (MAID-ISON)*	*4*
MONROE	*MONROWING*	*5*
QUINCY ADAMS	*QUINCY ADAMS A DAM*	*6*
JACKSON	*JACK SON JACKSON*	*7*
VAN BUREN	*VAN BURNING*	*8*
HARRISON	*HARRISON FORD*	*9*
TYLER	*NECK TIE*	*10*
POLK	*POKING (THE ACTION OF POKING)*	*11*
TAYLOR	*TAYLOR*	*12*
FILLMORE	*FILMORE (SOMEONE FILMING WITH A CAMERA)*	*13*
PIERCE	*PIERCES (THE ACTION OF PIERCING SOMETHING)*	*14*
BUCHANAN	*BOOK SHAPED CANNONBALLS*	*15*

If you want to further your mastery of this list, one step you can take is to mark every fifth president in the list with a number so you can quickly find which president was third, eighth, or fourteenth, etc., in a matter of seconds. To do this, go back over the story and add the following details:

1. ***WASHINGTON = First president, on a one-dollar bill (easy)***
5. ***MONROE = Imagine there are five oars attached to the rowboat***
10. ***TYLER = Harrison Ford ties ten neckties around his neck***
15. ***BUCHANAN = Imagine precisely fifteen book-shaped cannonballs being fired***

With this system, people can ask you who the eleventh president was, for example, and you'll remember Tyler as the tenth and then move on to the next image in the story (neckties are poking . . . poking = Polk!). If someone asks you for the thirteenth president, you would first remember Buchanan, the fifteenth president, and then move back two images in the story (before the books were being fired, something pierced the canon, and it came from a filmer =

FILLMORE!), etc.

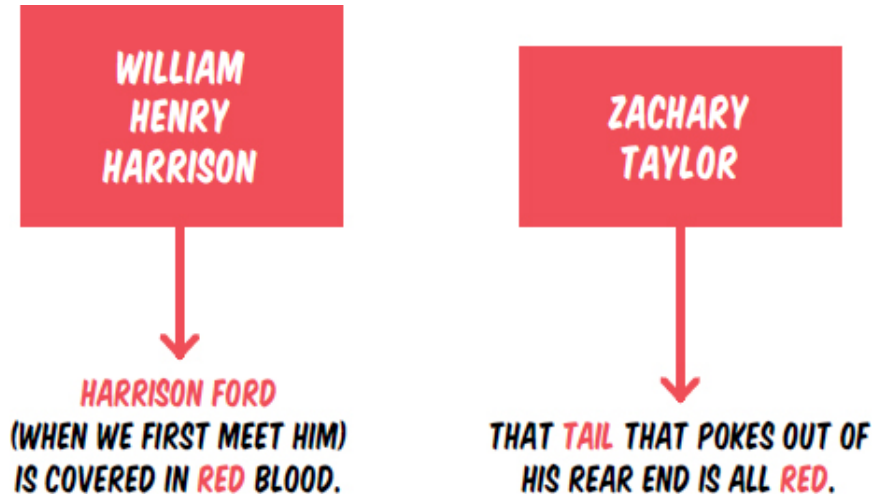
ADDING MORE INFO

To add more detail to each president, simply take each image and give it more detail and links to the sub-data you wish to add. For example, if you continued memorizing the rest of the presidents, you'd know that the forty-third president was George W. Bush. In our story, we memorize a garden bush to represent him. Now, take that image of a bush and give it more detail. Maybe instead of it being just a plain old bush, picture George of the Jungle swinging from tree to tree, and instead of seeing him swinging from a standard rope, picture him swinging from a *W*-shaped rope. Voilà. It's not *just* a Bush anymore, it's a George W. Bush!

Or what if we wanted to remember that a certain president died in office, such as Zachary Taylor, who supposedly died from cholera during his term? How fitting, since the *tail* (Taylor) that shot out of Harrison Ford's rear end happened to cause massive amounts of intestinal discomfort and diarrhea (i.e., cholera)! That little added thought process of coming up with some association between cholera and our image for President Taylor (tail) is all we need to remember his cause of death.

Another creative way to remember some small similarity across numerous parts of your list (such as which presidents died in office) is to decide on some common image that will represent that fact. In this case, "death" could be imagined by dousing your image in red paint or incorporating the color red in some way. Among the first fifteen presidents, two died in office (there are eight in all).

Let's take their images and incorporate red in each of them (it will kind of be like flagging them, so they will be easy to notice when we are recalling that specific piece of information):


WILLIAM HENRY HARRISON
HARRISON FORD (WHEN WE FIRST MEET HIM) IS COVERED IN RED BLOOD.
ZACHARY TAYLOR
THAT TAIL THAT POKES OUT OF HIS REAR END IS ALL RED.

There you have it! The amount of detail you can add is limitless and depends on how far you want to take it (we'll cover examples of how to tie years and dates to your images in chapter 6, this page, once you've learned a little more about number memorization in chapter 5, this page).

WHAT SHOULD I BE DOING?

HOW TO REMEMBER TO-DO LISTS

As we've seen in the previous section when memorizing the presidents, the Linking Method can be used as a simple way to remember a list in a specific order. Remember, the key to Linking is that **LINK** part. In other words, *association:* taking your mental picture of each item and making that picture somehow interact with the next item. This interaction can be in the form of an action, event, or reason. Maybe the picture *does* something to the next, or maybe the picture causes the next thing to happen, or maybe one picture shares a very obvious (or not so obvious) connection with the next picture. It's up to you! Once you have your whole story in place, every one of those interactions forms a bridge that links one point to the next, creating a seamless sequence so that you never have to make a tangential leap. So instead of trying to remember ten different things on your list, you have to remember only the first thing, its association to the next thing, and then *that* thing's association with the next thing, and so on.

PRO TIP

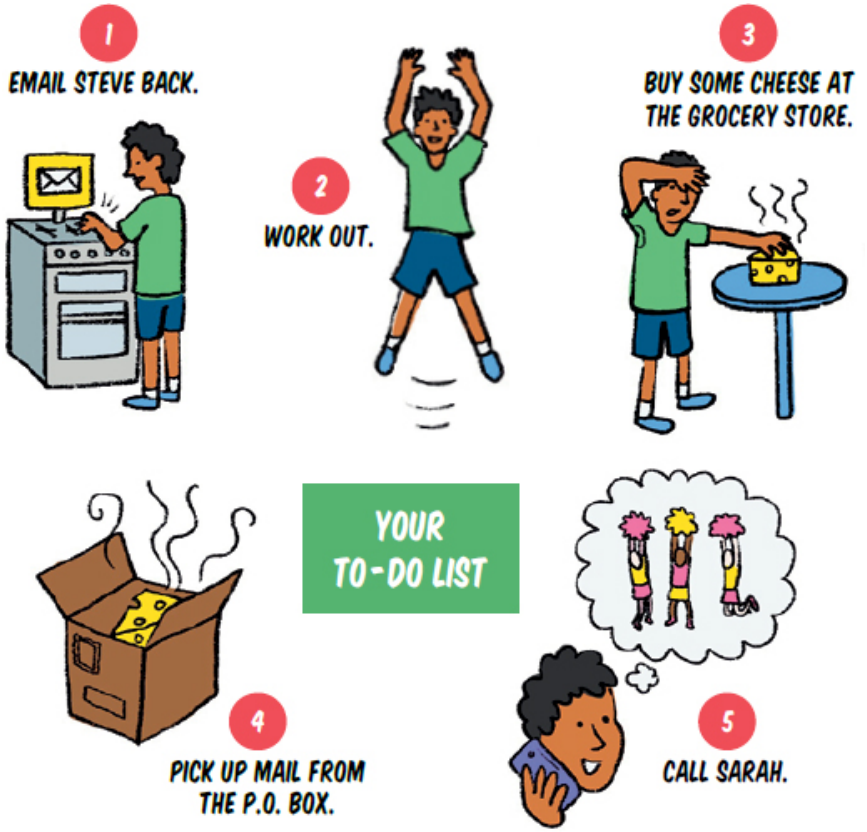
As you get more comfortable with the linked story you create and all its details, the story will eventually become natural for you to recall, and you might not even need the story from that point forward. Remember, a lot of these techniques are designed to get information in your head quickly. To turn it into something that is long-term and fluent to a point where you don't even need to think about it, review, review, review! More on this in section 3 (this page).

As I mentioned before, the Linking Method is best for situations where you are on the go and don't really want to do any prep work. Even though we can use it for a long list of things (forty-five president's names), I tend to keep it for shorter lists that don't really need to be memorized for long periods and are apt to change—something like a daily to-do list, for example. In a few pages, you'll see why I don't typically use it for long-term lists, but for now let's continue practicing with our new mnemonic tool!

To-do lists are a perfect use of Linking, since they're usually not too long and you don't have to store them in your mind forever. Here's how you would use the Linking Method to turn a to-do list into an easy-to-remember visual sequence:

EXAMPLE—Let's say your to-do list consists of:

1. ***Email Steve back.***
2. ***Work out.***
3. ***Buy some cheese at the grocery store.***
4. ***Pick up mail from the P.O. box.***
5. ***Call Sarah.***



With the Linking Method, we always start with the first item. So for *Email Steve back,* our image could be typing an email on a stove (*stove* is our image for Steve because it sounds like *Steve*). There you are, typing away on the stove. Maybe the stove is on and your fingers are burning like hell as you type away. Next, because the stove is so hot, you keep yanking your fingers away from it. Eventually, because of the frequent arm movements, it looks like you're doing some jumping jacks, flailing your arms above your head and jumping about. Before you know it, you're simply doing a *workout* next to the stove. Once the workout is over, you're hungry and the only thing you can grab is some nearby *cheese*. Unfortunately, the cheese is old and decaying and doesn't taste very good, so you pack it up in a box and take it to your *P.O. box* to be picked up by someone. Before you leave the post office, you *call Sarah* to come pick up the box. To help you remember that it's Sarah who you need to call, maybe imagine that on the phone call you hear a large crowd of cheerleaders cheering *RAH RAH RAH* (Sa-RAH)!

COMING UP WITH IMAGES FOR DIFFICULT WORDS

You should have noticed by now that there is a clear difference between the types of things we are memorizing in the to-do list and the presidents we memorized before that. The presidents were a single word (name) at a time, while our to-do list items were a mix of semi-partial sentences, actions, varying sets of abstract words, etc. Memorizing a list like that requires a little more improvisation when coming up with images, especially since the words and phrases can be a little more complex. The way to deal with words or phrases that don't conjure up immediate images involves the following three steps:

1. What does it remind you of?

Let's use the word *liberty*, for example. What does liberty remind you of? And I don't mean what does liberty *mean*, because that will just lead you to more abstract thoughts. I mean, what concrete noun or object does that word remind you of? Most people (Americans, for sure) would say the Statue of Liberty. That's an easily visualized thing I can concentrate on in my head. Yeah, it's a little bit more than the word *liberty*, in fact, it's two words *longer* than the actual word I'm trying to remember! But it doesn't matter. Your brain is clever enough to know that the Statue of Liberty is only a placeholder for the actual word *liberty*.

2. If it doesn't remind you of anything, what does it sound like?

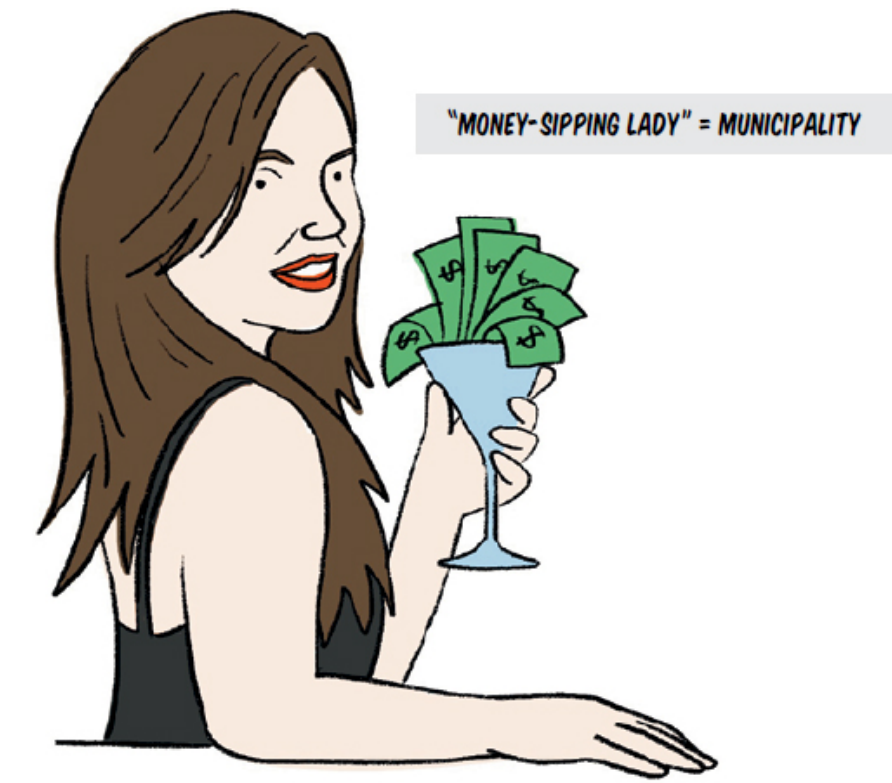
Let's use the word *sworn*. Sworn doesn't really remind me of anything concrete, so I need to move on to what it sounds like. Sworn, to me, sounds like *swarm,* which in turn reminds me of a swarm of bees. That's my image. I might add a little more relevance to the image so it relates back to the original word. So imagine this swarm of bees is sworn to serve and protect their queen. Voilà, that's it.

3. If you strike out on those first two steps, don't despair, you just need to break it down into smaller, more manageable chunks.

Let's use the word *municipality*. Maybe it reminds you of something, or maybe it sounds like something to you, but let's assume it doesn't. Let's say "muni," "cip," and "ality" are those chunks.

Now, you may not even need the last two pieces to memorize this

word; our brains are really good at picking up the slack as long as they just have a bit of an association to nibble on. Anyway, “muni” sounds like *money,* “cip” sounds like *sip,* and “ality” kind of sounds like *a lady*. We can now combine it all into one image: a woman drinking dollar bills out of a martini glass (a *money-sipping lady*.) I know it may seem like a stretch, and it’s so far removed from the definition of the word and what the actual word *is*, but as soon as you remember the colorful image of a pretty lady sipping a cash-filled martini, that “money” and “sipping” part will trigger your memory of *municipality*.



If the item you’re trying to memorize is a collection of words, break it down into the most important words, or if you can, into a single word that encompasses the whole idea. Once you’ve broken it down, apply steps 1 and 2. If you want to get better at memorizing text and sentences word-for-word, fret not, as we shall cover that in chapter 6 (see this page)!

WAS IT A LEFT OR A RIGHT AT THE LIGHT?

HOW TO REMEMBER DIRECTIONS

Think of all those times you stopped someone in the street to ask how to get somewhere. You listen intently as the kind Samaritan unloads a barrage of *lefts* and *rights* and *turn heres* and *turn theres*. Great. You politely say thank you, he or she darts off, and suddenly you're struggling to remember where to go. Frustrating! Or how about all those times you entered an address in your phone's GPS and you had to keep checking your phone while you drove to make sure you didn't miss your exit. Wouldn't it be nice to just have those directions memorized so you never even had to glance at your phone?

Memorizing directions is one of those things that would be really helpful to know how to do, especially in a pinch, since it's usually needed when you're in a rush or in a fast-paced situation (driving, in traffic, rushing down the street). In other words, you don't get a lot of time to process the information given to you, so it needs to be memorized quickly. Since every step in a set of directions follows one after another, the Linking Method is a perfect solution for remembering sequences like driving or walking directions.[†]

The approach is similar to the one we used previously for our to-do list, but with one key difference: You're going to get a lot of repeat words. Words like *right* and *left,* or *go straight, exit there, street, avenue,* etc., will most likely show up multiple times. To deal with those repeats, especially the *rights* and *lefts,* come up with some type of mini-system or preset images beforehand to represent those things; images that are unmistakable for the things they represent. For instance, how about for lefts and rights you imagine a verb or adjective starting with the letter *L* or *R* and have that verb/adjective happening to or describing the image you have for the rest of the direction step?

EXAMPLE 1—Try out your skills with this route:

1. From your starting point, go left on Square.
2. Left on Prince St.
3. Right on Hanover St.
4. Left on Bennet St.
5. Right on Salem St. . . until you arrive at Paul Revere's house!

Here's what I came up with: I started out with a *large Square* (Left on

Square), *licking* a *Prince* (Left on Prince). The prince chugged a *red* Bloody Mary to cure his *Hangover* (Right on Hanover), but *lactated* all over Uncle *Ben* (Left on Bennet), who *ran* and jumped in a *Sailboat* (Right on Salem). Gross—but memorable! And now, if you're ever in Boston, you know how to get from Paul Revere's house on Square to the Old North Church on Salem. You're welcome!

EXAMPLE 2—Let's try a slightly more challenging set of directions with some numbers thrown in (we'll have a better control of numbers once we get through chapter 5, but we can still make do for now).

Let's say you're sightseeing in New York City and have just tried sneaking into the exclusive (and impossible to get into unless you own one of the 383 existing keys!) Gramercy Park‡ and want to explore a more accessible park like Central Park. I enter the locations into my Google Maps app on my phone just as I notice I've got 1 percent battery left. Uh-oh. Better memorize these directions fast:

1. Head west On 20th St.
2. Turn right on Broadway.
3. Get on the N or R train at 23rd St. heading uptown.
4. Get off at the 57th St. stop.
5. Head up 7th Ave . . . until you get to Central Park!

Okay, rather than having a bunch of lefts and rights this time, we have some more complex instructions that involve numbers. Assuming you are already on 20th Street by the park, "heading west on 20th St." isn't actually too hard a direction to follow—just start walking. The directions really start at "turn right on Broadway." Using my convention for *lefts* and *rights* from the previous example, I'll start my Linking Method story by imagining I'm watching a very *racy* Broadway musical—nudity and sexual innuendo abound! As the musical progresses, one scene in particular showcases Michael Jordan (*23* is his famous jersey number, so 23 reminds of me of 23rd St.) playing basketball against a team of Norwegians (*N*-o-*R*-wegians reminds me of the two train options I have: N or R)—he jumps UP (*uptown*) over them in a fantastic display of athletic ability! As MJ lands back on the ground he accidentally lands on an *off* switch (to help remind you to get *off*) that turns off 57 of the stage lights, leaving the entire audience in complete darkness. If 57 is too arbitrary a number to memorize, split it up and try to make it more meaningful:

Maybe the lights shine only on the first *5* rows of the audience, which happen to be filled with *7*-year-olds . . . who obviously shouldn't be at this racy musical in the first place! Finally, under the cloak of darkness, all those sneaky 7-year-olds (*7th Ave.*) creep out of the theater and make their way up to the park to play (*up* and *park* will remind you to "head up" and go to the "park"). There you have it!

PRO TIP

I know it can feel overwhelming to think that you would have to come up with a story like this quickly, on the fly. But trust me when I say that with a bit of practice and some confidence in your memory, it really is a lot easier than it may seem. I'm writing all the details out for you so you can understand the example, but when you do it on your own, you'll be able to do it a lot quicker, without having to read and visualize what I write in an example. The best thing you can do is give it a shot and see for yourself!

SECTION 2 — THE PEG METHOD

The upside of the Linking Method is that it can be done quickly and it keeps list items in a very specific order. But there are two big downsides to the method. The main one is that it requires you to start at the beginning of a list and go through everything in exact order. Say you were recalling the presidents and the first thing you remember is a *washing machine* (Washington). Maybe you remember the Granny Smith apples (Adams) being taken out of the washing machine by a chef (Jefferson), so you know Madison comes next (remember the chef puts on a *maid's* outfit afterward?). But what if you confuse the order of events somewhere down the chain, or what if you completely blank on one of the images in the linked chain? You're stuck and your list is shot. Unfortunately, the Linking Method gives you back the information in a one-directional way. Sure, you have all the items memorized in order, but you can't really say the items out of order or jump around with a precise mastery of all the information. So how do you keep track of a list in a way that allows you to claim that mastery?

Hello, Peg Method.

The Peg (or Anchoring) Method is another technique that essentially corrects for the biggest shortcoming of the Linking Method by allowing each item on a list to be remembered independently of all

the other items. You still need some sort of glue that holds all the items together (i.e., that *lovely* **LINK** step), but instead of gluing them to each other, the Peg Method "pegs" each item to an "anchor" item on another list. I know what you're thinking: "Two lists! That's insane!" You're right, it would be insane if you had to memorize a whole other list just to keep track of the first one, which is what some other memory books suggest. But I'll make it much easier for you. So easy, in fact, that you've already memorized that "anchor" list without knowing it.

If you're a baseball fan, for example, you have a list of the different fielding positions (1 for pitcher, 2 for catcher, etc.) already memorized. If you happen to know the order of the planets in our solar system (Mercury, Venus, Earth, etc.), because it was ingrained in you at a young age, there's another peg list ready to go as well. Or numbers! We all know how to count from one to whatever number you want (one, two, three, etc.), right? There's another list! Or how about one of the most universal lists that we've *all* already memorized: the alphabet (A, B, C, etc.)? Basically, anything that is in the form of a list that you have already memorized and know well can be used as your peg list. Once you have a peg list ready, simply follow **SEE–LINK–GO!**, only this time for **LINK** you're going to associate your image with an item on your peg list. The fixed order of your peg list is what will keep the order of your *memorized* list.

YOUR ROYAL HIGHNESS

HOW TO REMEMBER THE KINGS AND QUEENS OF ENGLAND

Just to be fair to my friends across the pond, since I walked you through memorizing the first fifteen U.S. presidents with the Linking Method, I thought we could walk through an example of the Peg Method with the first few monarchs of England. I'd cover *all* the monarchs, but Britain has had a pretty long history so that would take up a significant portion of our book. But don't worry, I'll get you started, and I'll leave it as a nice exercise for you to try to complete on your own if you feel compelled to do so.

First, let's identify the peg list we want to use. I vote for the Alphabet Peg List, since we all know the alphabet, from A to Z. If we wanted to memorize the first ten monarchs, our anchors would need to be the letters A through J. Now, just having a letter character as our peg isn't quite enough—it's not very memorable, is it? Instead, let's come up with a very simple image that starts with the letter.

I like to suggest to first-timers that they think back to the walls of

their kindergarten class. Remember all those cursive letters? There was usually a letter paired with an image that started with that letter. *A* was an *apple, B* was a *bat, C* was a *car*—it's all coming back to you, isn't it?

It doesn't really matter what the image is as long as it starts with the letter you're interested in and it's a simple enough image (I wouldn't recommend going for words like *absquatulate* for *A* or *baboonery* for *B*).

Here are some suggestions for A–J:

A - APPLE
B - BAT
C - CAR
D - DOOR
E - ELEPHANT
F - FISH
G - GRASS
H - HOUSE
I - ICE CREAM
J - JAR

And now for our first ten monarchs:

1. ***OFFA***
2. ***EGBERT***
3. ***AETHELWULF***
4. ***AETHELBALD***
5. ***ATHELBERT***
6. ***AETHELRED***
7. ***ALFRED***
8. ***EDWARD THE ELDER***
9. ***AETHELSTAN***
10. ***EDMUND THE MAGNIFICENT***

I'll admit that's a pretty daunting list with some very strange yet similar-to-each-other names. But don't worry! One thing we have oodles of is that memory confidence I've instilled in you, right? We

can do it. All we need to do is **SEE** each monarch as a vivid image, **LINK** it to the peg image we have in the corresponding numeric position in our list, then, as per usual, we **GO!** See the chart on this page for how I would go about it.

PRO TIP

We have a few "Aethel" prefixes on this list, and it's probably going to be a tough thing to come up with a picture for, so let's preassign it before we begin. Aethel sounds like "ethyl," which is a common prefix in the names of chemicals. Since we typically keep chemical liquids in bottles, why not incorporate an image of a bottle to represent Aethel?

After you have memorized the chart, now what? Well, the mental process of recall goes as follows (in slow motion, so you can follow):

You know the order of the alphabet, so you start at A. You then ask yourself what the word from your peg list is that starts with *A* (*apple*), then that image should have attached whatever image you anchored to it. In our case, a bucket of offal: King Offa! Next, *B* (*bat*) helps us remember a baseball bat was smashing into a crate of eggs: King Egbert! You get the idea. See if you can recall the rest of the list on your own.

Pretty impressive, right? What's even more impressive is that you can say that list forward or backward (try it!), you can start at any point in the list, or you can jump to and from one part of the list to another without running the risk of losing your place as with the Linking Method. And the better you know your peg list, the more impressive things you can do with your list. For example, if I know that *G* is the seventh letter of the alphabet, then I can jump straight to the seventh king of England: That would be *fried grass* or King Alfred! I have *instant* access to all of my memorized information. It's like having a proper filing system in your mind!

As an exercise, see if you can first build out your full Alphabet Peg List (check out the appendix, this page, if you want to piggyback off mine) and then memorize another set of ten monarchs (or heck, finish them all!).

One thing you may have wondered by now is, "But, Nelson, what if my peg list isn't as long as the item list I want to memorize?" Great question. There are a few solutions. One solution is to group or chunk a few items at each anchor. So instead of *A* being just for Offa, you can imagine a bucket of slimy offal *and* cracked eggs filled with apples

(remember of course to create an image that somehow takes note of the order so you know offal comes first and *then* eggs). Another option is to think of clever ways to extend your peg list. In the case of the Alphabet Peg List, we could have multiple lists using the alphabet but maybe each list is themed differently. Maybe our main Alphabet Peg List could be for types of animals, a second one could be for different foods, and yet a third one could be sports-related words, and so on. So if my list of kings and queens goes beyond twenty-six items (since there are only twenty-six letters in the alphabet), items twenty-six through fifty-two could be my second Alphabet Peg List, and items fifty-three onward could be on my third Alphabet Peg List.

REMEMBERING ENGLISH KINGS . . .

OFFA

A SLIMY BUCKET OF **OFFAL** (THE ENTRAILS OF A BUTCHERED ANIMAL) MIXED WITH DELICIOUS **APPLE** SLICES. WHAT ON EARTH WOULD THAT TASTE LIKE?? YUCK!

EGBERT

SMASHING A CRATE OF **EGGS** WITH A BASEBALL **BAT** . . . SLAM! THINK OF ALL THE YOLK SLIME THAT WOULD GET EVERYWHERE.

AETHELWULF *

A **BOTTLED WOLF** BEING HURLED OUT OF A MOVING **CAR**. THAT WOLF IS HOWLING AS HE FLIES THROUGH THE AIR.

AETHELBALD

A **BOTTLE** OF SHAMPOO THAT CAUSES **BALDNESS** BEING POURED ONTO A HAIRY **DOOR**, MAKING IT, YUP, YOU GUESSED IT . . . LOSE ITS HAIR.

AETHELBERT

ACTOR **BURT REYNOLDS** IS DRINKING FROM A **BOTTLE** AS HE RIDES ON THE BACK OF AN **ELEPHANT**.

* DON'T FORGET: AETHEL = BOTTLE

. . . USING AN ALPHABET PEG LIST

AETHELRED

A **BOTTLE** OF **RED** HAIR COLORING BEING POURED ON A **FISH**. THAT FISH NOW HAS SOME EPIC GINGER LOCKS!

ALFRED

FRIED (ALFRED = FRIED) **GRASS** BEING SERVED AS A SIDE WITH A DELICIOUS HAMBURGER.

EDWARD THE ELDER

A BIG **OLD** (ELDER) **WOODEN HEAD** (HEAD-WOOD = ED-WARD) PLACED IN THE MIDDLE OF A BUNCH OF BIG EMPTY **HOUSES**.

AETHELSTAN

STANDING (STAN) ON A **BOTTLE** FILLED WITH COLD, YUMMY **ICE CREAM** CRACKING UNDER YOUR WEIGHT.

EDMUND THE MAGNIFICENT

A **MOUND** OF **MAGNIFICENT HEADS** (HEAD-MOUND = ED-MUND) ALL STUFFED IN A **JAR**. HOW EERIE IS THAT?

WHAT'S THE PLAN FOR TODAY?

HOW TO REMEMBER DAILY APPOINTMENTS AND MEETINGS

Here's a classic everyday memory lapse: You can't remember what time or what day you were supposed to show up for a meeting or appointment. There just happens to be another kind of peg list perfectly suited to this problem. For organizing your daily appointments, you can use the Days of the Week Peg List. We can use an approach similar to the Number-Rhyme System and come up with images that use the sounds of the days of the week. The most memorable images will be the ones that come to mind most easily for you, but here are some suggestions:

Monday: Mountain, Moon, Monster
Tuesday: Tooth, Tools, Toons
Wednesday: Wedding, Wet, Wedgie
Thursday: Thirst, Third Base, 30 Rock
Friday: French Fries, Fraying, Fridge
Saturday: Sitting, Satellite, Sad/Sadder
Sunday: Sun, Your Son

Likewise, you can keep track of specific times of your appointments by using a mental image of an analog clock and overlaying it on some spatial peg list you already know. One possibility is to use a map you're familiar with, for instance, the United States, and then overlay the positions of the hours from a clock. If we're taking a bird's-eye view of the U.S. map, noon/midnight could be a big city in the central north, such as Minneapolis. The rest follow in a clockwise fashion. Check it out:

12:00 — Minneapolis
1:00 — Chicago
2:00 — New York
3:00 — Washington, D.C.
4:00 — Charleston
5:00 — Miami
6:00 — Dallas
7:00 — Phoenix
8:00 — Los Angeles

9:00 — San Francisco
10:00 — Portland, Oregon
11:00 — Seattle

The specific places you use don't have to line up exactly with the positions on a clock face, and they don't even have to be cities: If I have dinner plans at 7:00 and I can't picture myself in Phoenix, I just think of being in the desert; if I have a dentist's appointment at noon, I might just imagine having my teeth drilled in the middle of a lake. Whatever it is you decide to picture, it will most certainly be more memorable than a nonvisual thought of a plain old number. If you have an appointment time that is half-past, quarter-past, or quarter-to the hour, we can come up with simple adjustments for our images (similar to how we painted everything red for our dead presidents earlier on this page). For example's sake, let's say right at the top of the hour (noon, 2:00, 5:00, etc.) will just be the default image—no adjustments. For any half-past hour (12:30, 3:30, etc.) appointment, we slice our image right in half. For any quarter-past (1:15, 6:15, etc.), we add a twenty-five-cent coin (a quarter) into the image, and for any quarter-to (3:45, 7:45, etc.), we add a Colt .45 handgun to the image. If you also want to keep track of A.M. versus P.M., maybe just imagine your image in darkness if it's P.M. (I wouldn't worry about this too much, most appointments are obvious, based on context—you're not going to visit the doctor at 10:45 P.M., and you're definitely not getting a haircut at 3:15 A.M.)

LET'S TRY ONE TOGETHER

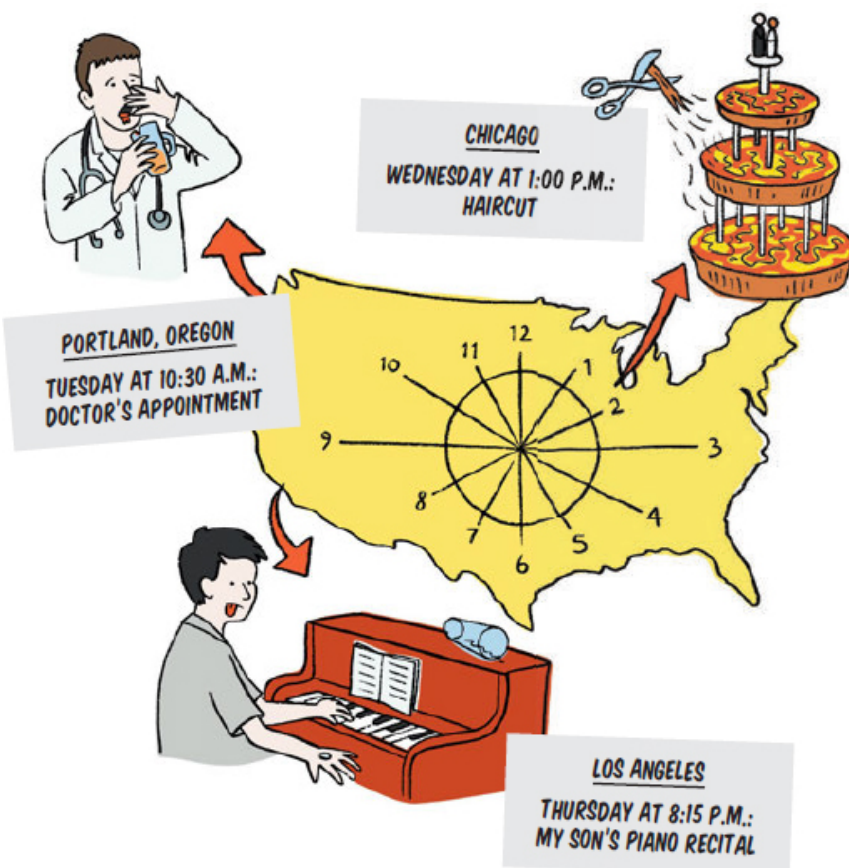
EXAMPLE—This week I have a doctor's appointment on Tuesday at 10:30 A.M., a haircut on Wednesday at 1:00 P.M., and my son's piano recital on Thursday at 8:15 P.M.
Using my Days of the Week Peg List, I see that I have important events happening on Tuesday, Wednesday, and Thursday. Let's start by **SEE**ing the Tuesday appointment. My image for Tuesday will be a *tooth*. Now, let's **LINK** it: My image for the appointment will be some mix of a doctor with something about Portland, Oregon (10:00), sliced in half (10:30). Portland makes me think of microbreweries, since its residents are all about artisanal foods and drinks. And finally, let's **GO!**: Picture a *doctor* having a brewski at a *microbrewery* and his *tooth slices right in half* as he takes a sip out of a chipped glass beer mug. *OUCH!*

Next up, Wednesday, where my image is a *wedding*. I have a

haircut appointment at 1:00 P.M., so I'd better think of my *hair being cut* and used as an ingredient for a delicious *Chicago deep-dish pizza pie*. To tie that back to the wedding, maybe that pizza pie is being baked for the reception of a wedding. Or maybe the haircut is actually happening *at* the wedding.

Finally, our last appointment is the piano recital on Thursday at 8:15 P.M. Our peg image for the day will be *thirst*. The peg for 8:15 P.M. will be an image of *L.A.* at *night,* with a *quarter coin* somehow worked in. How about this: Your son is *playing piano* at a *late-night* jazz bar in *Los Angeles* (think Ryan Gosling in *La La Land*) and he's just scrounging for a *quarter* so he can buy himself a drink—HE'S SO *THIRSTY!*

REMEMBERING YOUR APPOINTMENTS, USING A DAY OF THE WEEK PEG LIST



YOUR BODY IS A WONDERLAND

HOW TO REMEMBER THE LARGEST COUNTRIES IN THE WORLD (BY POPULATION)

While the Alphabet Peg List and the Days of the Week Peg List are great places to start when first applying the magnificent power of the Peg Method, there is another amazingly convenient peg list at your disposal: your body.

Choose as many body parts as you like, as long as they connect in some kind of order that is obvious and memorable (maybe start at your head and make your way down to your toes, or vice versa) and you've got a portable peg list! Let's jump right into an example that uses ten body parts to memorize ten things. How about the ten largest countries in the world by population?

Our ten body parts will be:

1. ***TOP OF HEAD***
2. ***EARS***
3. ***EYES***
4. ***NOSE***
5. ***MOUTH***
6. ***CHIN***
7. ***ARMPIT***
8. ***BELLY BUTTON***
9. ***KNEES***
10. ***FEET***

Our ten countries are:

1. ***CHINA***
2. ***INDIA***
3. ***UNITED STATES***
4. ***INDONESIA***
5. ***BRAZIL***
6. ***PAKISTAN***
7. ***NIGERIA***
8. ***BANGLADESH***
9. ***RUSSIA***
10. ***JAPAN***

The first thing we need to do is to **SEE** the countries as images:

1. ***CHINA = CHOPSTICKS***
2. ***INDIA = CURRY***
3. ***UNITED STATES = HAMBURGER***
4. ***INDONESIA = IN DOUGH***
   (PRESSING IN SOME DOUGH WITH THE PALM OF YOUR HAND, LIKE A BAKER)
5. ***BRAZIL = BRA***
6. ***PAKISTAN = PACK OF CARDS***
7. ***NIGERIA = CHEERIOS***
   (NI-CHEER-IA, CLOSE ENOUGH . . .)
8. ***BANGLADESH = BANG!***
9. ***RUSSIA = VODKA***
10. ***JAPAN = POT***

Then, we **LINK** and **GO!** using our Body Peg List. Since the items on our list are real things that are *actually* on our bodies, go ahead and imagine the images for each country interacting with your own body parts.

1 ***CHINA: CHOPSTICKS*** are resting on the top of your ***HEAD,*** drenched in soy sauce and wrapped in some remnants of noodles.

2 ***INDIA:*** Dripping out of your ***EARS*** is a spicy ***CURRY*** sauce.

3 ***UNITED STATES:*** A ***HAMBURGER*** patty takes the place of your ***EYE*** socket. Maybe a single tear of mayonnaise rolls down your cheek.

4 ***INDONESIA:*** Imagine pressing ***IN*** some ***DOUGH*** into your ***NOSE***. Some of the dough seeps into your nostrils and plumes of flour jet out.

5 ***BRAZIL:*** Like a magician pulling an endless multicolored flag out of his ***MOUTH,*** except it's a sexy, lacy ***BRA***. *Ooo la la!*

6 ***PAKISTAN:*** Resting on your ***CHIN*** is a full ***PACK OF CARDS***. Maybe a blackjack dealer is about to deal the cards straight from your chin!

7 ***NIGERIA: CHEERIOS*** are flowing out of your ***ARMPITS*** into a bowl for your consumption. They've got that extra BO tang. Yum!

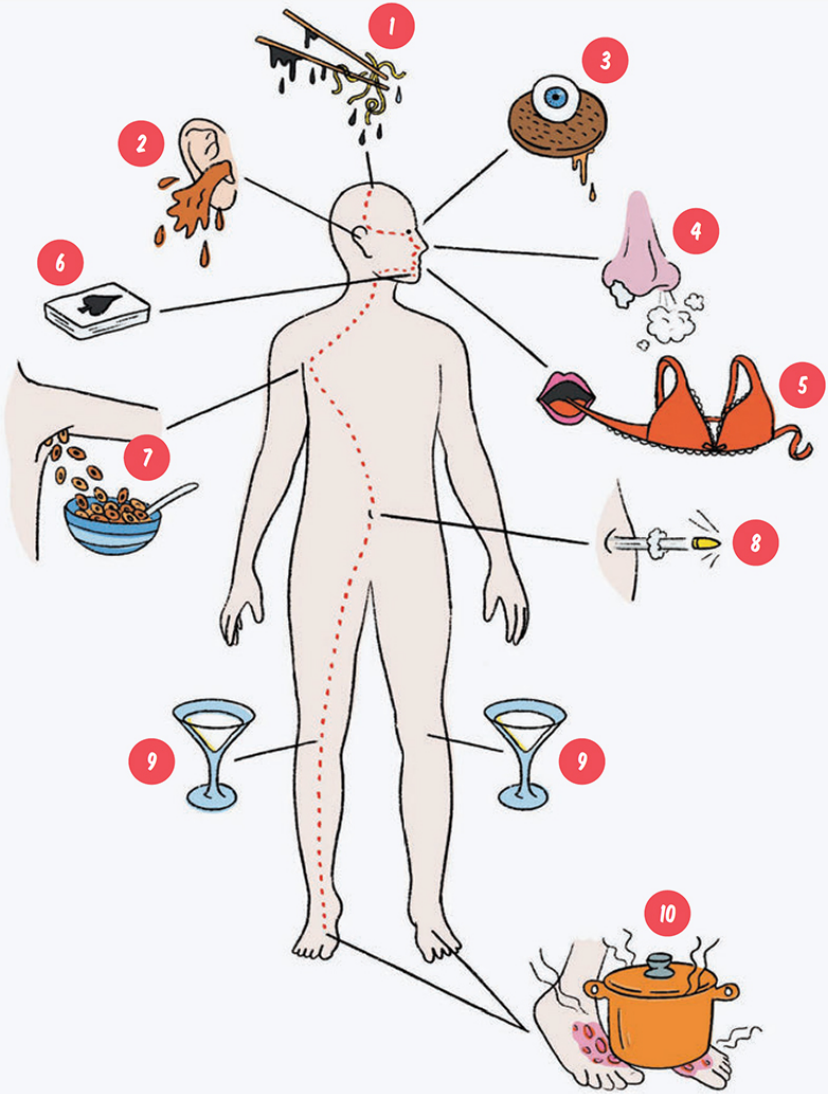
8 ***BANGLADESH:*** From out of the deep crevasse of your ***BELLY BUTTON*** shoots a bullet, as if from a gun—***BANG BANG!***

9 ***RUSSIA:*** Your ***KNEES*** are two potent Russian ***VODKA*** martinis.

10 ***JAPAN:*** Down on your ***FEET*** is a burning-hot ***POT*** cooking your dinner. Your feet, as a result, are covered in nasty blisters.

There you have it. On your body now lie the most populated countries in order. Well done!

TOP 10 COUNTRIES BY POPULATION, USING THE BODY PEG LIST



GOOOOOOOOAL!

HOW TO REMEMBER WORLD CUP HISTORY

Another easy-to-use peg list is a Number Peg List. Although we haven't really covered numbers yet (we will, in chapter 5, this page), I'll briefly show an example of how using this list works.

Again, a great choice for a peg list is *any* list you know well. Since we all know how to count, why not use a list of countable numbers? If we use a Number Peg List, we can't just use the image of the number as our peg. No, that's not enough. Rather, we need a way to visualize the number as an image, and use *that* as our peg.

There are two simple options for Number Pegs: the Number-Rhyme System (chapter 5, this page) or the Number-Shape System (chapter 5, this page). With the Number-Rhyme System you use images that come from words that rhyme with the numbers (one = bun, two = shoe, etc.), and with the Number-Shape System you use images that *look* like the shapes of the numbers (1 = stick, 2 = swan, etc.).

There have been twenty World Cup champions since 1930.[§] Let's commit the most recent five to memory using the Number-Shape System (my personal preference). First, we'll have to think of images to represent our pegs 1–5. The Number-Shape System uses images to represent the numbers based on what their shapes look like (refer to chapter 5, this page, for the full list). See below:

1. ***STICK (looks like a stick)***
2. ***SWAN (looks like a swan sitting on a lake)***
3. ***HANDCUFFS (looks like a pair of open handcuffs)***
4. ***SAILBOAT (looks like the sail of a boat)***
5. ***SNAKE (looks like a snake perched, ready to strike)***

As for the champions, since they're all country names, our images should be something that reminds us of the country . . .

REMEMBERING WORLD CUP CHAMPIONS, USING A NUMBER PEG LIST

GERMANY

IMAGINE STABBING A STICK OR SKEWER INTO A JUICY, DELICIOUS GERMAN BRATWURST SAUSAGE.

SPAIN

IMAGINE A SPANISH BULLFIGHTER IN A BULLFIGHTING RING, ONLY HE'S NOT FIGHTING A BULL; HE'S FIGHTING A SWAN.

ITALY

IMAGINE A ROGUE ITALIAN PIZZA SLICE, DOING SOME BAD STUFF, GETTING ARRESTED, PUT INTO HANDCUFFS.

BRAZIL

IMAGINE TWO SAILBOATS COMING ALIVE AND PLAYING SOCCER WITH EACH OTHER, KICKING A BRAZILIAN SOCCER BALL BACK AND FORTH.

FRANCE

IMAGINE THAT INSTEAD OF METAL BEAMS, THE EIFFEL TOWER IS MADE UP OF THOUSANDS OF LIVE SNAKES INTERTWINED.

1. ***GERMANY = BRATWURST SAUSAGE***
2. ***SPAIN = BULLFIGHTER***
3. ***ITALY = PIZZA***
4. ***BRAZIL = SOCCER BALL***
5. ***FRANCE = EIFFEL TOWER***

Then, we simply **LINK** each image to its corresponding anchor and **GO!**

Count to five and it will be impossible not to think of the shape associated with the number, and subsequently the country that won the World Cup. Using a Number Peg List is great if you're in a tight spot, in need of a quick list to attach images to, but I don't recommend it if your list is longer than twenty or so items. Try thinking of words that rhyme with twenty-three or images that look like the shape of the numeral 45. Yeah . . . it's not trivial, is it? Most Number-Rhyme or Number-Shape systems that you'll find go up only to ten, *some* up to twenty. But past that it doesn't really make sense.

Like Linking, the Peg/Anchoring Method makes it easy to remember the sequential location of information, and it also adds a layer of defense against interference by associating each item with a specific position (instead of just associating it with the item before and the one after). This means you can jump from one item to another without having to go straight down the line. But they're both lacking one important quality: You can't store them deep in the recesses of your mind, long-term, because they're just stories floating around with no place to call home. To add in this third dimension, we need a technique that takes advantage of our brains' special ability to remember places and spaces. I'm talking, of course, about the Journey Method.

SECTION 3 — THE JOURNEY METHOD

I previously told the tale of the Greek poet Simonides and how his dinner party came to an abrupt halt when his banquet hall collapsed on all of his guests, mangling them beyond recognition. With his eyes shut, Simonides realized he could spatially visualize where each of his guests had stood, and as a result was able to identify the bodies. This was the birth of the concept of the Memory Palace—what I like to call the Journey Method.

It's very simple and is reminiscent of the Peg Method we just

learned. In fact, it's actually a very *specific* use of the Peg Method, but it's so much more effective as a technique that it deserves its own name. The method requires you to imagine a *place* you know very well (it can be a house you grew up in, an apartment you currently live in, the path you walk to get to your grocery store, whatever), then to anchor the images of the things you're memorizing to locations along a path through that place. Instead of **LINK**ing the images to letters of the alphabet with the Alphabet Peg List, we will **LINK** them instead to locations on a journey.

While everyone who's used the technique over the centuries has come to know how well it works, we've only just begun to understand *why* it works. Since the '70s we've understood that working memory (the process of taking in new information and either hanging on to it briefly in order to use it moments later or encoding it so we can remember it much later) relies on a "visuospatial sketchpad"[1] to create the kinds of mental images we remember. In the '80s, researchers found that visual and spatial mental imagery are distinct from each other.[2] And in the early 2000s, further research showed that presenting people with new visual information can interfere with their visual memory, just as presenting them with new spatial information can interfere with their spatial memory—but visual information does not interfere with spatial memory, or vice versa.[3] In short, ***if you anchor visuals to locations, you're less likely to get things mixed up than by anchoring them to other visuals***.

Simply put, our brains are hardwired for it! Are you ready to take a walk through your first memory journey?

WHAT DO I NEED FROM THE GROCERY STORE?

HOW TO REMEMBER A LIST

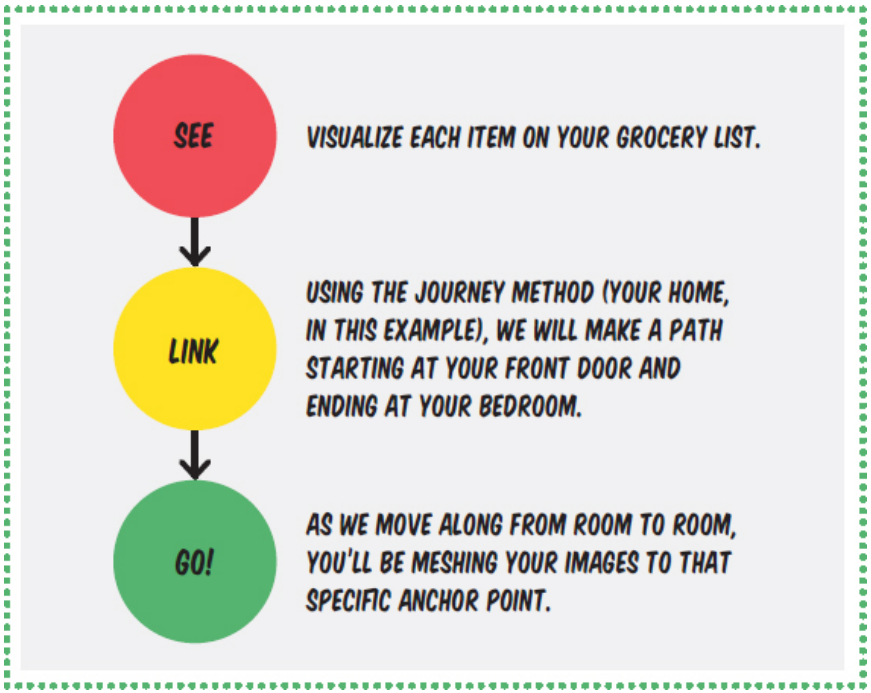
You've just arrived at your local grocery store and you check your pockets for that grocery list you scribbled down moments before leaving your house. Uh-oh, it's not there! As you rack your brain trying to come up with all ten of those items you wrote down, you think to yourself how nice it would be if you could memorize your list *every* single time you go to the grocery store!? No more getting yelled at by your spouse, no wasting gas having to make multiple trips, and no more frustrating groans when you get home and realize that you forgot the one thing you needed the most.

What memorizing a grocery list boils down to is remembering a ten- to twenty-item list of mostly one-word nouns that are easy to visualize (mostly food items, of course). Both the Linking Method and

the Journey Method work great here, but this is where the Journey Method really shines.

Before we get into the **SEE—LINK—GO!** process, you'll need to decide on a journey to store all of your items in. Your home should do the trick! And before we step inside your mental house, I'm going to leave ten grocery-ish words floating in the ether of your brain. Look at them carefully and try to remember them—but don't waste your time trying to memorize them by rote.

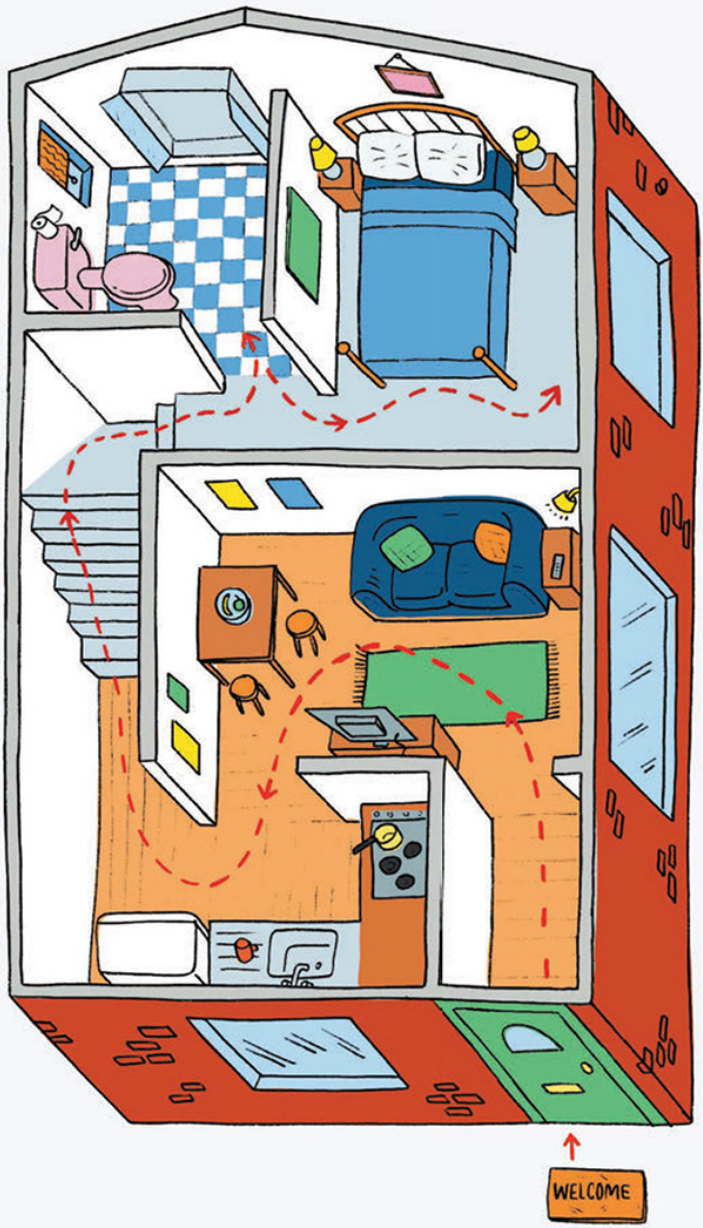
Now, before we start "redecorating" your home with all these items, we'll need to turn your home into a journey by making a mental path through it. Imagine standing at your front door, then walking inside and going room by room until you've come up with ten different places—one for every word. A path could be front door > entryway > living room > kitchen > hallway > staircase > bathroom > cabinet > bed > bedroom window, but it all depends on the layout of your home. I'm just choosing one for the sake of this example, but you'll want to make your own ones in the future. The only requirement is that the path make sense. It can't jump erratically from one room/thing to another—it needs to be in some order. Imagine you're actually walking or floating through your home, maybe in a clockwise or counterclockwise fashion. Remember to be consistent! The path needs to be something you don't even have to think twice about or memorize. Also notice that I sometimes use a piece of furniture, and other times a whole room or section of a room. Ultimately, it doesn't matter as long as you just decide to make whatever it is an anchor point.


SEE
VISUALIZE EACH ITEM ON YOUR GROCERY LIST.
LINK
USING THE JOURNEY METHOD (YOUR HOME, IN THIS EXAMPLE), WE WILL MAKE A PATH STARTING AT YOUR FRONT DOOR AND ENDING AT YOUR BEDROOM.
GO!
AS WE MOVE ALONG FROM ROOM TO ROOM, YOU'LL BE MESHING YOUR IMAGES TO THAT SPECIFIC ANCHOR POINT.

Got it? Now we're going to follow that path on our first journey (feel free to grab a pen, cross out my anchor points, and insert your own, if that makes it easier to envision).

Starting at the door—try to picture the door as a massive piece of Swiss ***CHEESE*** *Don't forget to* ***GO!*** *with it, so let's make that cheese super stinky. It's possibly even so rancid that it's actually melting down the door.*

YOUR FIRST MEMORY PALACE/JOURNEY



*Moving through the door, we find ourselves in the entryway to our home. But alas, it is covered in streams of **TOILET PAPER**! You even see some rebellious teens running off in the distance, snickering to themselves at having just thrown toilet paper all over your entryway.*

*Moving into the living room, think of a big **KIWI** fruit just plopped there, where it doesn't belong. Imagine all the hairs coming out of its fruity skin, and maybe a portion of the kiwi is sliced open and you can see the green insides. Imagine taking a big, juicy bite of that kiwi. YES!*

*Next, in the kitchen, imagine a massive, thick **ROPE**, like the kind that moors a cruise ship, tied into a lasso, and you're twirling it over your head. Then you throw that rope around different pots and pans in your kitchen, making a loud cacophony of crashing metal.*

*On to the hallway, where you find your self stepping into a thunderstorm. The hallway is flooded and there is a horrible rainstorm going on. You wade through the ankle-deep water, hearing the splish-splash of the rain and the **WATER** crashing against your legs and the walls.*

*As you step out from the deluge onto the staircase, a **CHICKEN** flies in and decides to climb the staircase with you. Imagine the chicken clucking itself along, flapping its wings and leaving a trail of feathers behind.*

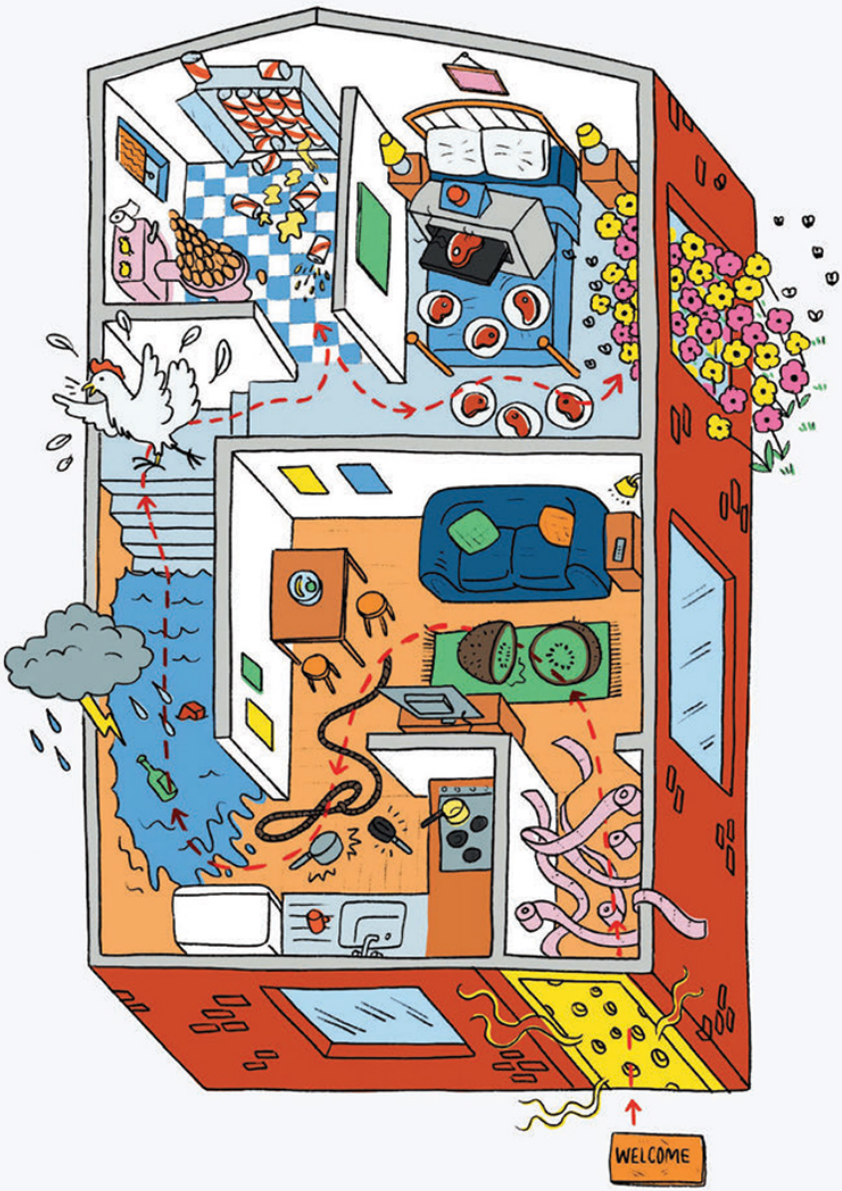
*After that, in the bathroom, there's a giant mound of **EGGS** piled up on the toilet. The pile has risen so high that it's almost touching the ceiling. A few of the eggs have even cracked open to reveal baby chicks that are beginning to chirp loudly.*

*In the bathroom is a cabinet, and you open it up and find a seemingly unlimited supply of **BEER** cans tumbling out of it. Some of them crash to the floor and start fizzing up and exploding open, spraying beer-ish foam everywhere. Don't forget to imagine the strong smell of beer!*

*Making your way to the bedroom: On your bed there's a big, shiny silver machine that has just one oversize, red button next to a little slot. You press that button and a juicy, smoky **STEAK** comes sliding out of the slot. You press the button over and over, and steaks just keep pouring out of the slot. Mmmm . . . unlimited steak!*

*Finally, across from your bed, coming in your bedroom window is a huge cluster of **FLOWERS**. Imagine the most colorful flowers you can with dozens of bees abuzz, attracted to them.*

CAN YOU REMEMBER YOUR GROCERY LIST?



There it is! And might I say what a stately, elegant, and phenomenally weird journey it is. Now, without looking at the grocery list, go back to the doorstep and retrace your path, recalling the list of words along your way. Even better, start in the last room and recall the list in reverse order. Got 'em all, didn't you? Amazing!

A MOUNTAIN OF A TASK!

HOW TO REMEMBER THE TALLEST MOUNTAINS IN THE WORLD

With my background in mountaineering, I think it's only fitting that I teach you all the highest mountains in the world.¶ If I didn't, I'd be doing a great disservice to those massive, ancient behemoths that have inspired so many to think, create, explore, and climb. Also, think of the parallels between the Everest of our physical world and the Everest of your mental memory techniques: the Journey Method. This method really is the best of the best. It's the exact tool the top memorizers use to memorize anything of size and weight.

One hundred thousand digits of pi? Journey Method.

All the verses of the Bible? Journey Method.

A shuffled deck of playing cards in under twenty seconds? Yup, the Journey Method.

The previous tip taught you how to memorize a grocery list using a journey, and now we'll use one to learn a list of facts (the names of the highest peaks). What'll make this list slightly more challenging than the last is the names of the peaks themselves, since they are for the most part Nepalese/Tibetan in origin.

Just a warning that because these names are difficult, I may not necessarily choose a single word to represent the image; it might be a phrase or a few words, just so we make sure to get all the parts of the name correct . . .

1. ***EVEREST = RESTING***
2. ***K2 = K9 DOG WITH 2 LEGS***
3. ***KANGCHENJUNGA = CAN JACKIE CHAN PLAY A GAME OF JENGA ?***
4. ***LHOTSE = SAYING "LOTS TO SEE"***
5. ***MAKALU = MAKING A LOO***
6. ***CHO OYU = SAYING "LEMME CHO YOU"***
7. ***DHAULAGIRI = DOLLAR CARRY***
8. ***MANASLU = MAN WHO FLEW***

9. NANGA PARBAT = MANGO PAR BAT
10. ANNAPURNA = ANNA KOURNIKOVA BURNING

The next thing we need to do is decide on a journey. Previously we used a generic house; I encourage you to use one of your own, meaningful journeys, since they will be a lot more memorable than any generic one I come up with here. But since we are all learning for the first time together, let me create another one for you so that we can all follow along. Why don't we use the generic backyard illustrated on the opposite page?

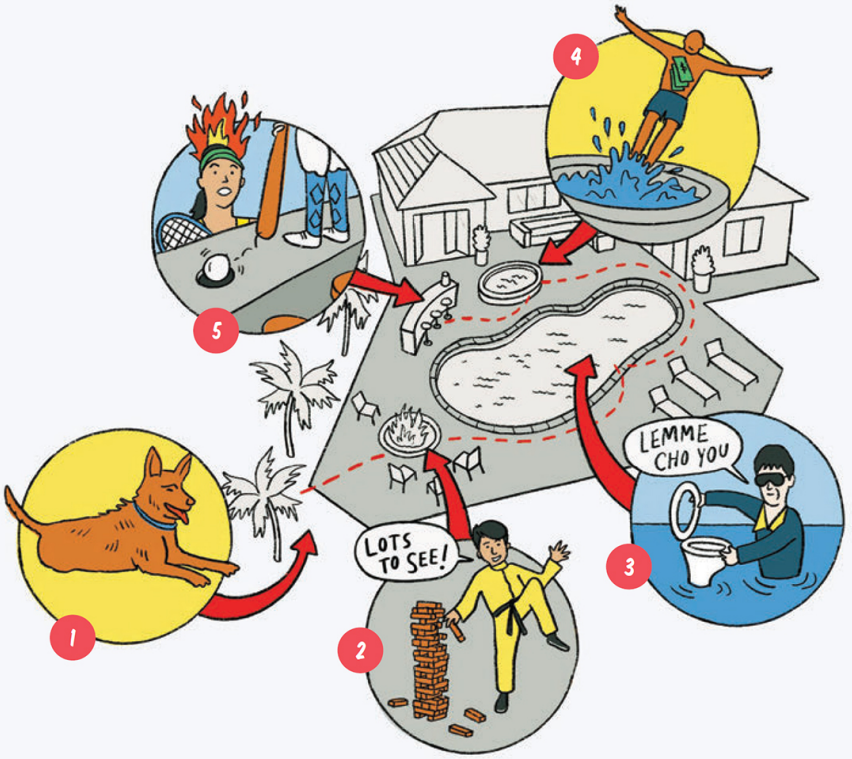
Now that we have our space selected, we need to select our path through the space and each of the anchor points we plan to stop at along that journey. We're going to tackle the ten highest peaks that reach more than eight thousand meters above sea level (all in the Himalayan mountain range, I'll have you know),** so we will need ten anchor points—one for each mountain. To save space—and to show you how to be a little savvier with your mental storage space—let's pair *two* mountain names at a time at each location so that we need only five anchor points.

My journey will start at the left of the picture and make a short loop in a counter-clockwise direction as shown. . .

YOUR JOURNEY

1. THE LEFTMOST PALM TREE
2. THE ADJACENT FIRE PIT
3. THE POOL
4. THE JACUZZI
5. THE POOL BAR

CAN YOU REMEMBER ALL THE MOUNTAIN NAMES?



Putting it all together:

1 ***EVEREST & K2:*** Under the ***LEFTMOST PALM TREE***, we picture a ***RESTING K9 DOG WITH ONLY 2 LEGS.***

Note: *It's important to make sure the resting comes before the thought of the dog. Since we are pairing words, we want to make sure we keep an eye on the order of that pair. We need to rememberEverestfirst, and K2 second.*

2 ***KANGCHENJUNGA & LHOTSE:*** Beside the ***FIRE PIT*** we have ***JACKIE CHAN*** playing ***A GAME OF JENGA*** while shouting, in his thick Hong Kong accent, ***"LOTS TO SEE, LOTS TO SEE!!"*** As an outside viewer, you are watching and wondering, "Hmm, can Jackie Chan play Jenga?" Or is he going to knock over all the blocks? He seems to be doing well and is shouting at you that there is apparently "lots to see!"

3 ***MAKALU & CHO OYU:*** In the ***POOL***, we have Tony Montana from *Scarface,* ***MAKING A LOO*** (toilet) and telling everyone around him (in his thickest Cuban accent, of course), ***"LEMME CHO YOU."***

4 ***DHAULAGIRI & MANASLU*** Splashing out of the ***JACUZZI*** is a ***DOLLAR-CARRYING MAN WHO IS FLYING.*** This man is flying right out of the Jacuzzi while carrying a bunch of dollar bills on his chest (remember, order is important here, so it's a dollar-carrying man who flew, *not* a man who flew while dollar carrying).

5 ***NANGA PARBAT & ANNAPURNA:*** Finally, on top of the ***POOL BAR*** you have a golfer putting a ***MANGO*** for ***PAR*** while using a baseball ***BAT***. He putts the mango successfully into the hole just as ***ANNA KOURNIKOVA*** (the famous tennis star) pokes her ***BURNING*** head out.

It's a wild sequence of events, to be sure, but one you'll never be able to shake from your memory! If you want to say this list in reverse, since we paired up images, don't forget to say each pair backward.

HOW MANY TABLESPOONS OF TAHINI?

HOW TO REMEMBER YOUR FAVORITE RECIPE

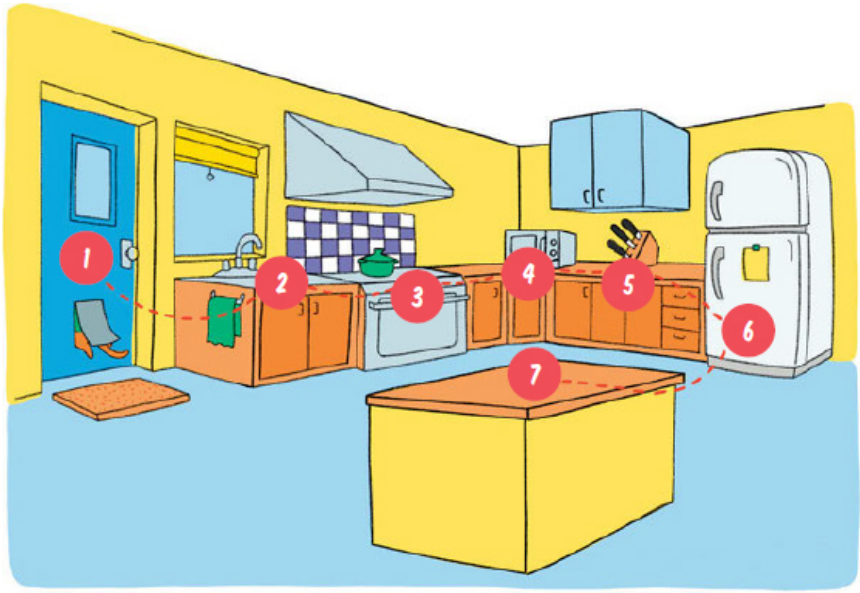
Let's use a journey to store something practical, like your favorite sauce recipe—in this case, *my* favorite tahini sauce recipe. Not only will you get the hang of how to use a journey to memorize longer, complicated instructions (in this particular example I'm using a recipe, but the same approach can be used for *any* type of instruction), you'll also know how to make one seriously delicious sauce that you can pour on just about anything you want. (I mix it in with some shredded chicken, rice, quinoa, corn, carrots, almonds, broccoli, and nutritional yeast.) Get ready to have your taste buds explode![††]

Throw all of the following in a blender and you'll be good to go:

* ***2 GARLIC CLOVES***
* ***2 INCHES (5 CM) FRESH PEELED GINGER***
* ***1 TABLESPOON TAMARI SAUCE***
* ***2 TABLESPOONS LEMON JUICE***
* ***2 TABLESPOONS TAHINI***
* ***1 TABLESPOON OLIVE OIL***
* ***2 TABLESPOONS WATER***

As usual, we need to choose a space to create our journey. Let's use a generic kitchen (since after all, this sauce is going to be made in the kitchen). Let's use the one illustrated on the opposite page.

We have seven steps of instructions, so we'll need seven anchor points along a route through the kitchen. In case you're wondering why we're not pairing steps together the way we paired mountain names in the previous example, it's because these images are going to be a bit more complex since they are longer than single words. I'd rather devote a whole anchor to each step so I can really flesh each one out. Our journey will be from the door on the left to the kitchen island as shown opposite.



1 DOOR ON THE LEFT
2 FAUCET
3 STOVE
4 MICROWAVE
5 KNIFE BLOCK
6 FRIDGE
7 CENTER ISLAND

Before we start coming up with images, let's first take a look at what we'll be encoding. Most of it is simple food items, with a measurement and a small number. This recipe happens to be pretty simple since almost everything is a tablespoon or two. Other recipes might have an amalgamation of tablespoons, teaspoons, cups, liters, grams, and the like. We are no stranger to such added details. We simply come up with a fixed image for each of them as we see fit. A tablespoon could be a *table;* a teaspoon could be a *teacup;* and so on. As for numerical measurements, the number images can be improvised. (Or jump to chapter 5, this page, and teach yourself a number system really quick.) Now let's come up with our images . . .

1 2 GARLIC CLOVES: Imagine ***TWO VAMPIRES*** (garlic reminds us of those notoriously garlic-phobic villains) crashing through the ***DOOR***. Imagine them with their pale skin and fangs.

2 ***2 INCHES (5 CM) FRESH PEELED GINGER:*** Picture turning on the ***FAUCET*** and seeing a miniature ***TWO-INCH-TALL REDHEAD*** (or what we affectionately call a *ginger*) pour out. Better yet, picture *me* (I'm a 6′6″ [198 cm] ginger) as a two-inch-tall version of myself.

3 ***1 TABLESPOON TAMARI SAUCE:*** (Tamari sauce sounds a little like tamale, a Hot Tamale—the fierce cinnamon chewy candy). Melting on the ***STOVE*** is a single Hot ***TAMALE.***

4 ***2 TABLESPOONS LEMON JUICE:*** Exploding in the ***MICROWAVE***, picture *two* bright yellow ***LEMONS***; lemon juice splattering against the inside of the microwave window in a flash!

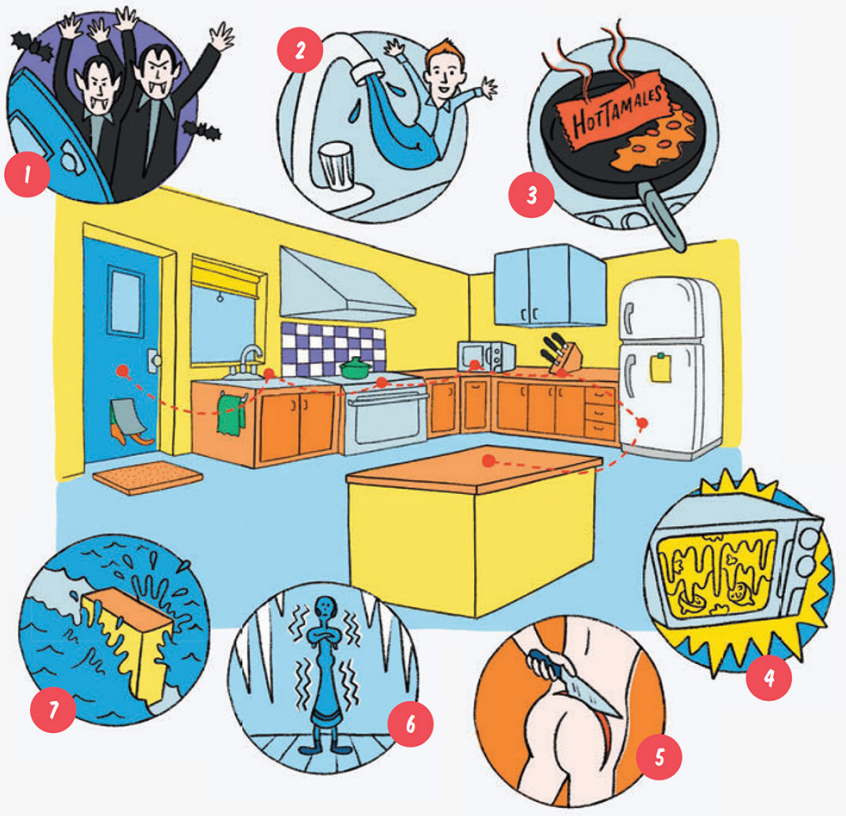
5 ***2 TABLESPOONS TAHINI:*** Tahini is also a tricky one. Most people just know it as sesame butter. But let's say you've never heard of it; imagine breaking up the word into ***THE HEINIE***. Not exactly the word, but close enough. You pull a massive butcher knife out of the ***KNIFE BLOCK*** and start cutting off *the heinie* (your heinie). Why?? Ouch! Remember that your heinie has *two* butt-cheeks—to help you remember 2 tablespoons.

6 ***1 TABLESPOON OLIVE OIL:*** Open up the ***FRIDGE*** and inside you find ***OLIVE OYL***, Popeye's girlfriend, nearly freezing, teeth chattering.

7 ***2 TABLESPOONS WATER:*** Finally, on the ***CENTER ISLAND,*** imagine it actually *is* an island in the middle of two merging oceans of *WATER*, one on each side, with waves crashing all about.

Before you even try to recall, I recommend you start cooking dinner so you have something to pour the sauce on. Oh, and you're welcome.

JOURNEY METHOD FOR REMEMBERING HOW TO MAKE TAHINI SAUCE



SHOULD WE JUST GOOGLE MAP THIS?

HOW TO REMEMBER DIRECTIONS EVEN QUICKER!

We already talked about memorizing directions with the Linking Method (see this page), but I wanted to briefly touch on memorizing directions with a slight twist using our new skill, the Journey Method.

LET'S TRY ONE TOGETHER

EXAMPLE—Say you're in Paris, having just finished seeing the *Mona Lisa* at the Louvre, and you want to visit the Notre-Dame Cathedral just blocks away. You stop someone on the street right in front of the Louvre's entrance and ask (luckily she speaks English), "How do I get to the Notre-Dame from here?" She replies, as she points down the road: "Make your first left onto the Quai du Louvre, go down, and then on the fourth bridge (or Rue de la Cité) make a right, keep going straight until you see the cathedral on your left." "MERCI!"

As you hear that, put yourself inside one of your memory journeys (anywhere you like, actually) and navigate through it according to each step in the directions (and adding images to help you remember any street names or extra details). You might want to start in a room that has access to lots of other rooms (usually the living room). If you hit a dead end, no worries—use your imagination and float through a wall! Ah, the beauty of memory journeys!

So if the first step is "make a left," imagine walking out of the living room to the left. Because there is a street name to remember (*Quai du Louvre*), make sure to add an image for the name and place it in the room or space you're making a left into. "Quai" is pronounced "kay" (as in "okay"), so why not imagine making a left and suddenly seeing the entire Louvre with you standing next to it, unimpressed, saying, "Meh, it was *okay* . . ." (Okay - Louvre = *Quai du Louvre*). Next, for "go down, and then on the fourth bridge (or *Rue de la Cité*) make a right," continue down the corridor in your memory palace and make a right into the first room or space available, where you see a sailboat (to represent the number four) crashing into a bridge —"fourth bridge." If you want to remember the name of the street as well, *Rue de la Cité* (which translates literally to "street of the city"), add a kanga-ROO (*Rue*) bouncing around a city (*Cité*) knocking over all the buildings. To recap: You have a sailboat crashing into a bridge,

then right next to it a kangaroo bouncing on a city. Finally, "keep going straight until you see the cathedral on your left." Next, continue straight for a bit in the current room, and at some point imagine turning left to see BLAM! That beautiful Notre-Dame *Cathedral* towering above you. The nice thing about this process is that you'll know which room you end up in at each step, so you don't have to memorize left, right, or straight—you just go from room to room.

THAT FOREVER MEMORY!

HOW TO MANAGE YOUR JOURNEYS AND REMEMBER THINGS LONG-TERM

The Journey Method is a simple technique, but a powerful one—and virtually limitless in terms of how many anchor points you can choose along your journey. You might be saying, "Hey, Nelson, I live in a studio apartment. Does that mean I can store only two things in my memory journey?" No! Even in one big, open room (or a tiny, cramped one) you can pick out at least five anchor points: the four corners and the center of the room. You can also use different items within the room as anchors: a bed, a couch, a dresser, a window, a door, and so on. I have journeys that fit in a room, while others span an entire city.

The important thing to remember is that the Journey Method works by combining visual memory with spatial memory, so it's about the furniture's location, not the furniture itself. As long as you have a consistent pattern (e.g., clockwise, left to right, or some well-defined path), you can make tiny micro-journeys around the corners of a room. (You can even imagine yourself as a *Honey, I Shrunk the Kids*!-size person traveling around—think how massive your journey could be then!) As Boris Konrad (an elite German memory athlete) likes to say, "I can teach you how to memorize the U.S. presidents on a bar of soap!"

But this is where the Journey Method further outshines the Peg Method. ***There really is no limit to how far your journeys can go.*** Even if you've gone through every nook and cranny in your house, you can still extend a journey just by walking out the door. Commonly, the Journey Method is called the Memory Palace Method. While the word "palace" might make you think "building," anything from a drive around the city to a hike in the mountains can be a "palace," as long as you can pick out anchor points and flow through them in the same order every time. For some of my longer journeys, like the one I used to memorize ten thousand digits of pi (yup, I did

that), I'll mentally go through some familiar parts of my hometown of Miami and pick out several hundred anchor points—every home I've ever lived in, every office I've worked in, my high school, my favorite bookstore, and so on—with all the different rooms and areas I can recall from those places.

In a case like that, it's good to write down the whole journey point by point, so you can rehearse it in your head before adding the visuals to each point. You may also want to go to the actual place and walk through it just to make sure you remember it in enough detail (or use Google Street View if you can't get there in person).

The more places you know, the more journeys you can create. Adding more journeys is like upgrading your brain's hard drive—gigabytes of capacity. Use any place that's memorable, but especially the places that are meaningful (personally, I love revisiting Everest base camp, and my favorite stroll is through Paris). You can use short journeys for shopping lists and long ones for epic poetry, if that's your thing.

What if you can't come up with a long journey? Should you combine a bunch of short ones? I wouldn't recommend it, unless there's a natural flow from each into the next. However, you can subdivide one journey into sections, which is especially useful for something such as remembering specific years for events. For instance, I once did a segment on a TV show where I taught the host how to memorize every Best Picture Oscar–winning movie by year, starting in 1928 with *Wings*. Our journey went through the Vizcaya Museum and Gardens in Miami—for each decade of Best Pictures we used a different section of the gardens. So to remember the winner from 1962 (*Lawrence of Arabia*), we could simply zoom ahead to the '60s section and jump to the third anchor point.

FINDING THE RIGHT JOURNEYS

As I said, your home is a good starter journey. Former homes work just as well, and I bet you remember their layouts even if you can't remember the shape of the dining table. Your school or office may give you a little more space to work with. But a journey doesn't have to be a building, or a fixed outdoor space. Heck, it doesn't even have to be real.

Let's say you're a *Seinfeld* fan—why not use Jerry's apartment as a journey? If you have a favorite movie that you know by heart, you could use each scene, and its setting, as anchor points. We're technically blurring the line between Journey Method and Peg

Method, but it will still work amazingly! If you're into games like *Grand Theft Auto, Minecraft,* or *Call of Duty,* you could use those worlds as journeys. You can even go to a brand-new place, real or virtual, and turn it into a journey as good as your home within five minutes or so, as studies have shown.[4]

To begin, my suggestion is to come up with three journeys, including your home. For each one, find a natural starting point, whether that's the entrance or the place you spend the most time. This is your first anchor. From there, you can either go around the room and pick out more anchor points or move on to another room, but you want to get about ten to twenty anchor points per journey. Try not to double back to any spots—but if you do, make sure you view the space from a different angle so that it feels like a "different" anchor. Before you use your journey to memorize something, do a walk-through forward and backward just to make sure you have it all in order. Then it's ready for action!

But be careful reusing journeys too frequently. Once you've "recorded" mental images along a particular journey, you can "tape over" the journey later with new information—but you may get a little bit of interference if you try to reuse a journey too soon.⌗ For things like to-do lists and shopping lists, taping over becomes inevitable, especially if you're making those kinds of lists every day. If you want to memorize something for good, such as every Best Picture winner from the Oscars, pick or create a journey that you can dedicate to that list and never tape over.

REVISIT YOUR JOURNEYS

The great thing about the Journey Method is that you can study something once and it will be uploaded to your memory super quickly. But as with most things our minds memorize, without review it will inevitably fade. ***There is no avoiding the fact that if you want to keep information long-term, it's all about review, review . . . REVIEW.***

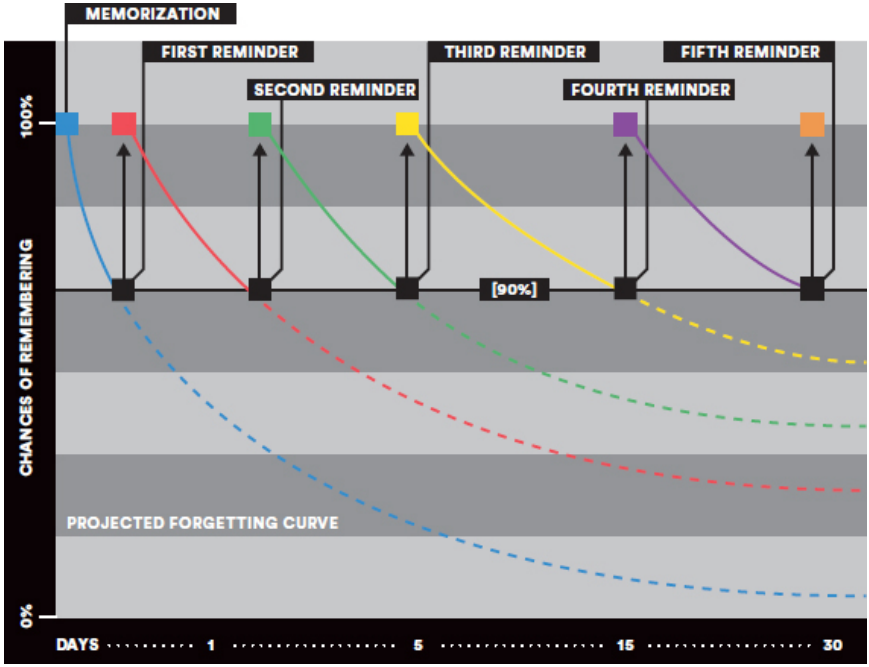
Reviewing can be tedious, and it takes time and effort. But making something stick long-term is all about *efficient* review. Reviewing with the Journey Method is significantly easier since all you have to do is close your eyes and walk through your journey. To review smart, you'll have to apply Spaced Repetition, which is based on the fact that there exists an ideal moment to review information you've learned. If you review that information too early, you'll be wasting your time; if you review too late, you will forget it and will waste even more time relearning it. Actually, the best time to review is right before you're

about to forget it. It's tricky to predict when that time will be, and the time will differ for each person and each piece of memorized information.

Hermann Ebbinghaus, a nineteenth-century German psychologist, was one of the first researchers to formulate notions of learning curves and forgetting curves and the concept of spaced repetition.[5] The chart looks something like the one opposite. Notice that the first time you memorize something, your retention rate will be more or less 100 percent. Wait a few days, and that rate plummets—it's not our fault! Our brains naturally forget most things over time. But what Ebbinghaus discovered was that if you review the information shortly after the first round, your retention shoots back up to 100 percent and the rate of decay is slower. Do that a second time, and a third, with the right spacing between sessions, and you essentially eliminate the rate of decay over time—in other words, you end up remembering something forever.

Think of it this way: Any memory you have is essentially an electrical connection between neurons in your brain. If that connection has been fired up only once or twice over a long period, it's not surprising that that connection won't be very strong and will become weaker over time. But if you keep activating and firing that connection (i.e., reviewing that memory), that connection strengthens. It creates something of a neural shortcut—a secret backdoor entrance—between those neurons. The bond between those neurons grows thicker and soon enough it's an easy connection to fire—a welcome old friend, or rather, memory!

Any review in general is helpful for making information last a lot longer, but true long-term memorizing needs to follow a mathematical model that takes into account the true forgetting curve illustrated in the chart.[§§] In this modern age, don't worry about knowing all that information yourself, because *there's an app for that*! Anki, Memrise, and the Art of Memory are some recommendations (see this page). For each, just enter the information you're memorizing and the app will set reminders to review the things that are on their way to forgetting-land.



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* A. Conan Doyle, *A Study in Scarlet* (New York: Harper Brothers, 1904).

† Sure, you could rely on turn-by-turn GPS directions, but where's the fun in that? Plus, memorizing directions means knowing ahead of time which way you'll have to turn so you can get in the appropriate lane (if you're driving), and it improves your ability to form mental maps, which comes in handy for creating memory journeys.

‡ I learned this the hard way when I planned to propose to my now-wife in Gramercy Park. Getting a key proved to be impossible, so I ended up just proposing out in front of the park. RATS! She still said yes though.

§ And there will be a twenty-first champion by the time of this book's printing.

¶ This is one of the things I teach audiences in my seminars. It also ties nicely into me explaining why I climb mountains. If you're curious, I climb mountains to raise awareness for Alzheimer's disease through my charity, Climb for Memory. For more info on my climbs and fundraising events, head over to www.climb4memory.org.

** In total, there are actually fourteen 8000m peaks in the world. It is considered an incredible achievement to have climbed them all. Less than forty people in the entire world have done this. Even less have done it

without any supplemental oxygen. Incredible!

†† This sauce is actually inspired by one from a restaurant near Boston called Life Alive. To die for. If you're ever in Cambridge, make sure to look it up!

‡‡ "Interference" meaning that you have echoes of past images you have previously memorized.

§§ The mathematical equation for the curve is $R = e^{-\frac{t}{s}}$, where R is retrievability (a measure of how easy it is to retrieve a piece of information from memory), s is stability of memory (determines how fast R falls over time in the absence of training, testing, or other recall), and t is time. For more details, check out Wozniak's paper: https://www.ane.pl/pdf/5535.pdf.

CHAPTER FIVE

Making Sense of the Gobbledygook Number Things and How to Make Them Stick

Numbers have life; they're not just symbols on paper.

—SHAKUNTALA DEVI*

Look around you—numbers are everywhere. You already know they're deposited in your bank, fighting for supremacy in every sporting event you watch, penciled into your calendar, and 100 percent crucial to every statistic you'd like to cite off the top of your head. They're fundamental to our identities, and even if you believe "age ain't nothing but a number," you and everyone you know still has one, along with a whole slew of others by which we measure and quantify ourselves.

You don't need to be a statistician, an accountant, an engineer, or an auctioneer to have an intimate relationship with numbers; even if you've written yourself off as "bad at math," you still can't escape their ubiquity.

But it's easy to see why numbers give so many people so much trouble, especially when it comes to remembering specific ones accurately. They're too abstract and indistinct from one another. Even if we can picture their shapes, they have no color, texture, environment, smell, sound, or flavor. When they're small, we might be able to picture them as tangible quantities, but that effect doesn't scale: A mental image of two little pigs looks very different from a cluster of three, but a group of 102 little pigs looks almost identical to a group of 103.

Some people who constantly think about numbers, such as accountants and sports junkies, may have a bit of an advantage. A number like 49 isn't random and abstract to a football fan in San Francisco, and a number like 1099 has special significance to an accountant. But you don't have to be a person who is constantly surrounded by numbers to memorize numbers easily though. ***Anyone can make numbers more memorable by making them more***

meaningful.

Just how memorable? Believe it or not, the official world record for memorizing consecutive digits of pi is 70,030 digits by Suresh Kumar Sharma of India—though Akira Haraguchi of Japan has unofficially reached one hundred thousand. In competition, where we get only five minutes to memorize as many random digits as possible, memory champion Alex Mullen currently holds the world record at 568, and I formerly held the U.S. record: 339 digits. But this number changes almost every year. Sure as you're born, what seems humanly impossible to memorize in competition one year eventually becomes standard practice for top memory athletes.

So how on earth are we number-memorizing freaks memorizing numbers? I'll be the first to tell you that most top memorizers don't have a proclivity for numbers. It's not rocket science; it's not even math. It's all storytelling. And it's not all that different from everything we've discussed so far—just a simple extension of **SEE—LINK—GO! SEE**ing the numbers as images is the hardest part of memorizing numbers. But you don't need to be able to see numbers dance around and come together magically the way John Nash did in *A Beautiful Mind*.

You just need a system. And systems we shall create!

SECTION 1 — THE SMALL NUMBERS

When learning how to memorize numbers, what we're really doing is learning how to memorize different-size *sequences* of digits. Now, you may be thinking, "But, Nelson, isn't a digit the same as a number?" Well, technically yes. But for our purposes, rather than thinking of having to memorize numbers as individual units on a number scale (like 34 or 1,764 or 803,976), we are going to think of numbers as a collection of digits—the individual numeric atoms that make up every number in the universe. Thinking about numbers in this way will save us a lot of mind power and make our lives easier. Think about it: There are only ten *digits*—0, 1, 2, 3, 4, 5, 6, 7, 8, and 9—while there are *infinite* numbers. As numbers get bigger, they're really just a sequence of digits growing in length.

By viewing numbers as made up of these ten digits, we can create some very simple and powerful mnemonic systems. As with anything, though, we have to start somewhere, and why not start with all the small sequences of digits that you need to memorize in your daily life? I'm talking about single numbers that you need to keep in your brain while counting pin codes and addresses. Let's get started, shall

we?

WHAT LAP WAS I ON?

HOW TO REMEMBER A SINGLE NUMBER

Nod if you've ever done this: You look up a phone number,[†] but to dial it you have to look down at your phone and away from the number, so you say the number in your head (or aloud) over and over until you've dialed it. It's a fairly effective memory trick—holding something in your working memory for a few seconds, just keeping it in the forefront of your mind until you need to use it. Sometimes we hold things in our working memory until we need to replace them, the best example of which is counting. You need to remember only the last number you counted, and you can forget that one as soon as you get to the next.

Using your working memory in that way is like walking a tightrope with an armload of fine china. One small misstep and you drop everything. One little distraction pops into your head and the thing you wanted to remember is gone. Even if you keep it together, your attention is so wholly devoted to that information that you're forced to block out everything else, even if it's more important. But it doesn't have to be that way.

Counting or, rather, holding a single number in your memory is one of the simplest forms of active memory. One of my favorite memory strategies for counting is the Ventriloquist Technique. I use the Ventriloquist Technique when I run laps at the gym, where each lap around the indoor track is 1/11 of a mile and I'm usually counting up to 33 or 44, with each uptick spaced a little under a minute apart. That's a lot of counting when you're running, and I prefer to space out. When I've been going for a little while, it's easy to forget if my last lap was the 22nd or the 23rd. Instead of using my normal head voice to count to myself, I say each number aloud (or quietly under my breath if I don't want to freak out anyone within earshot) in a different voice or intonation; sometimes I'll even say it in a different language. The key is to mix it up each time. I might say one to myself in a deep baritone; two becomes *deux* in the sexiest French accent I can muster; three could be in a high-pitched, nasal voice; and so on. When I ask myself, "Am I on lap three or four?" I just think back to the high-pitched three, which sticks in my head well enough that I don't need to give it any more attention after I've said it. If you have a hard time coming up with different voices, you can repeat those you used earlier, as long as there's no chance of confusing the instances

with the same voice. It shouldn't be too hard, though, even if you can't count in other languages. Just think about using different pitches, accents, drawls and trills, robotic voices, celebrity impersonations, and so on. I know it sounds ridiculous, but remember, making things crazy/weird is one of those ways you make something memorable (think back to chapter 3 [see this page]: It's the same idea but vocalized).

This technique is quick and effective for when you need to hold a single number in your head for a moment. In addition to being helpful during workouts, it can also help you remember a floor number, apartment unit, or house number, provided the number is relatively short and provided that you are relying on that luscious working memory of yours (i.e., you are needing to hold that item in memory only for a few moments). While this has its uses, of course it's better to be able to hold a number in your memory for a long time. We'll get to that in the next section!

MORE MONEY, MORE PROBLEMS . . .

HOW TO REMEMBER PIN, BANK ACCOUNT, AND CHECKING NUMBERS

One of the more common necessities of number memorization in real life is with pin numbers or short sequences that provide us with access to some of our most crucial information: our locked cell phones, ATM machines, gym lockers, etc. Above, I explained how to hold a very short number for a very short amount of time. Now we'll grow your digit-span retention to the next level. It will allow you to hold a slightly larger number in your memory for as long as you'd like.

One thing to note as you make your way through this chapter is that the techniques for memorizing numbers get more sophisticated as you go. More sophistication brings both good news and bad news. The good? Bigger numbers and stronger memory for numbers! (Always a good thing, right?) The bad? It takes a little more prep time to set the system up (no biggie, in my opinion). The even greater news? That each system or method works retroactively for everything we've learned before it. So as you learn a more complicated system, you can then designate *that* particular system for all your number-memorizing needs!

As our numbers grow, the difficulty in **SEE**ing the number as an image becomes more difficult. You can always improvise, of course. If a number reminds you of something immediately, then great! You have your image already. But this way of going about things isn't

always reliable. For numbers, especially because numbers are so predictable since they consist of only ten different digits, you need a consistent encoding system.

Since pin numbers and other similar-size numbers (four to six digits in length) are so short, we can use one of the quickest and simplest systems for digits, famously known as the Number-Rhyme System. Here's how it works: Each digit is given a preset image to associate with it based on a word that rhymes with the original number.

Another version of this simple single-digit system is the Number Shape System, which uses the shape of the number rather than the sound. I prefer it because it gives a little more flexibility for the image choices. Feel free to make up your own images, but these are my suggestions . . .

THE NUMBER-RHYME SYSTEM

HERO

HIVE

BUN

STICKS

SHOE

HEAVEN

TREE

GATE

DOOR

WINE

THE NUMBER-SHAPE SYSTEM

BALL

(ANY ROUND OBJECT)
EX.: TENNIS BALL, GUMBALL, MARBLE, ETC.

SNAKE

(ANY REPTILE/ANIMAL)
EX.: SNAKE, WORM, SALAMANDER, TURTLE, ETC.

STICK

(ANY STICK-SHAPED OBJECT)
EX.: BASEBALL BAT, PENCIL, KNIFE, ETC.

GOLF CLUB

(ANY SPORTS RACKET, CLUB, DEVICE)
EX.: GOLF CLUB, FIELD HOCKEY CLUB, TENNIS RACKET, ETC.

SWAN

(ANY TYPE OF BIRD)
EX.: SWAN, DUCK, GOOSE, ETC.

BOOMERANG

(ANY OBJECT WITH A SINGLE BEND)
EX.: BOOMERANG, ARROWHEAD, SHELF BRACKET, ETC.

BRA

(OR ANY TYPE OF UNDERWEAR)
EX.: BRA, BOXERS, TIGHTY-WHITIES, G-STRING, ETC.

SNOWMAN

(ANYTHING SNOW-RELATED, CHRISTMASY)
EX.: SNOWMAN, REINDEER, SANTA, ETC.

SAILBOAT

(ANY BOAT)
EX.: SAILBOAT, YACHT, CRUISE SHIP, ETC.

FLAGPOLE OR BALLOON ON A STRING

(ANYTHING LIKE A STICK WITH AN OBJECT ON THE END OF IT)
EX.: FLAGPOLE, BALLOON ON A STRING, HOT AIR BALLOON, ETC.

To memorize a sequence of digits, we just string the objects representing each digit into one memorable story. In other words, **LINK**! Once you have your story, of course, the most important piece of the puzzle is finding a way to always remember that *that* particular sequence is related to the pin code that gives you access to your bank card, or your suitcase lock, and so on. To do this, **GO!** Take your memorable story and mesh it with something related to the thing the number represents. Don't forget to make that story *out of this world*, so you never forget it!

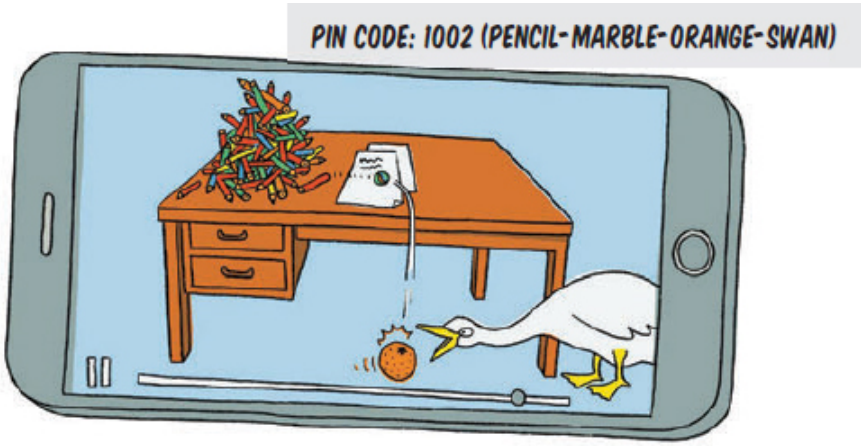
Both of the systems I just outlined are quick and easy to use. The Number-Rhyme System is probably the quickest and the least involved in terms of setup; but the images don't offer much variety. If your sequence has a lot of repeat digits, it can become a nuisance to deal with the repeat images. With the Number-Shape System, the images stay flexible by leaning toward categories, which is ultimately why I prefer this system over the former. For example, if you have to memorize the number 2, you aren't limited to one choice. As long as your image is a bird-related animal similar to a swan, you'll remember it was a 2. So if you had to memorize a string of three 2s, for example, you wouldn't have to picture three swans; a swan, a duck, and an eagle could spice that image up instead.

LET'S TRY ONE TOGETHER

EXAMPLE—The pin to unlock your cell phone is 1002.

Let 1 represent a *pencil*, 0 will be a glass *marble*, the second 0 will be an *orange*, and the 2 will be a *swan*. Our story will be as follows: You're working on an assignment and on your desk is a massive pile of pencils, ready for your immediate use. You pick up one of the pencils to start writing and as you press the tip to the sheet of paper, a glass marble rolls out from under it, across and off the table, from which it drops to the floor and hits an orange that is lying there, causing it to start rolling into the mouth of a nearby swan. Totally ridiculous, I know. But memorable!

Next, we **LINK** it to your cell phone somehow. This bizarre story is now one of the most viral videos of our time, gaining more than a trillion views in just hours! Of course, your friends text you the video, so imagine viewing this bizarre viral video on your cell phone.



6480 SW 6 . . . WHAT STREET AGAIN?

HOW TO REMEMBER AN ADDRESS

You've been in this situation before. You're out with your friends and you all decide to head over to a party that everyone and their mother is at. Someone gets the address via text, and suddenly everyone is getting in their respective cars while the address is being shouted back and forth from car windows. You're about to enter it into your GPS device, but suddenly everyone has driven off and you're now asking yourself, "Wait, what was the address again?"

The numbers will be encoded using the simple one-digit system you learned for pin codes, and for the words we will use what we learned in chapter 4 (see this page).

LET'S TRY ONE TOGETHER

EXAMPLE—Your new job's office location is 12412 SW 91st St. Okay, this one has quite a few digits in it. But no problem! Let's revert to our Number-Shape System. Let 1 be a *stick*, 2 will be a *red bird*, a *cardinal* (because why not?), 4 will be a *cruise ship*, 1 will be an *arrow*, 2 will be a *duck*.

Since I'm using the Number-Shape System, which has categories, I'm just going with whatever suits my fancy in the moment. Notice that our number has two repeat digits. We could have kept the same images for both instances, but with more variety, the more unique and memorable the entire story becomes.

So our story for this first slew of digits could be you standing there with a stick in hand, swatting at a cardinal that is flapping all about

you. Finally, the bird flies away and perches on a passing cruise ship, gets shot with an arrow (ouch!), and as we trace the arrow back to its owner we see a duck holding a crossbow, laughing maniacally at what he just did (not cool, duck).

Next, we have SW, which you know stands for Southwest. If you didn't know that, we can always come up with a picture for SW—maybe the word "SWeat?" Then we have 91. The 9 could be a balloon on a string and the 1 is a pin that is popping the balloon. Finally, we need to remember *Street*. We can just picture a street.

Let's put it all together and then connect it to the location. Let's start by picturing you at your office desk, in front of your computer swatting at that cardinal with a stick. Then the story continues from there. Bird goes to cruise ship. Arrow shoots bird. Duck is the shooter.

Then we add the rest.

As the duck is revealed as the shooter, covered in SWeat, he tosses his bow aside and grabs a big red balloon by the string and pops it. He then flees the scene and flies to the nearest *street* to get in his car and zoom off.

An elaborate story, but yet again, unforgettable!

SECTION 2 — THE MEDIUM-SIZE NUMBERS

In the previous section, we discussed a few different easy ways to remember one-digit or small-size numbers. They're fairly rudimentary, but they work (and in fact I still use them when memorizing simple

everyday things like pin codes). But I don't use them for anything over four or five digits, because even though I'm a pro, I still abide by one of the most basic principles of memory for all people: The less information you have to remember, the better. If I see the number 961574, I don't want to try to remember "balloon-golf club-stick-snake-snowman-sailboat" when I can simply think of "my best buddy Noah writing on a chalkboard with a sword." That's only one image, whereas with the one-digit system I'd need at least two or three, and possibly up to six.

These images aren't arbitrary—they're all part of the same number system I referred to earlier, with the elephant on the tractor and James Bond, Tony Blair, and 50 Cent at the gym (see this page). I've assigned images like these to every different two-digit number, so that when I see a certain number I immediately associate it with that image. Likewise, when I recall a series of images from one of my memory journeys, I can quickly translate them all back into their respective digits.

Learning a number system is much like learning a language. Say you're learning French and you've just learned that the word *chien* means *dog*. At first, you'll study that French word and mentally file it. The next time you encounter it, you'll take a second to think about it and translate it to the English word. Then and only then will you be able to picture what that word represents: a dog. After a good amount of usage of the word, that middle step will begin to disappear, and suddenly you'll find yourself seeing the French word and immediately having a picture in your mind of what it means. Similarly, after studying your number system, the translation will eventually become effortless; you'll be number-fluent. And if you put in that effort, you'll have that number system for the rest of your life. I guarantee it'll pay off every time you cross paths with a big number you need to remember.

Shortly, I'll walk you through the process of coming up with your own system, using my personal favorite "number language," the Person-Action-Object (PAO) System. But I want to give you options, since your number system will truly be your own creation and will depend entirely on using your own frame of reference. Sometimes, coming up with memorable images is a matter of combining elements of two number languages when one leaves you stuck. So before we get to the PAO System, I'll walk you through the Major System.

CAN I CALL YOU SOMETIME?

HOW TO REMEMBER HIS OR HER PHONE NUMBER

Think about this for a moment: How many phone numbers do you *actually* know by heart, your own aside? Probably none. Scary, right? Although I bet if you do remember one or two, it's a number you learned a *long* time ago, back when you had to remember it because the alternative was having to look it up in an analog phone directory (GASP!). Step back for a second and let that sink in for a moment . . . you remember a phone number from *years* ago, yet you don't have a number of recent importance stored in your mind.

A quick, snarky response to that might be "But, Nelson, why should I bother remembering a single number, when my phone can remember unlimited ones for me?" Fair point. But for one, you're reading this book because you want to have a better memory, and a better memory takes practice, so make the effort! For two, you probably find phone numbers hard to memorize (and easier to store in your phone) because you never *try* to memorize phone numbers anymore. If I can make memorizing numbers easier for you, then what do you have to lose by trying?

And listen, I'm not suggesting you never store a phone number in your phone again. I'm all about using devices to help manage our lives. But how about memorizing a number first, then maybe *later* entering it in your phone? And when calling someone, when not in a pinch, try to recall it from memory. Those small little details will do wonders for your number-memory prowess—and could save the day if your phone battery runs out. Now let's get down to the technique side of it . . .

Storing a phone number is a little trickier than storing the types of numbers we tackled earlier in this chapter, but only because they are slightly longer numbers and because of the increased frequency with which we are given them and use them. Unless you've got some freakish natural working memory, you probably won't be able to keep a phone number in your head just by saying it in your head (and if you can, I doubt you could remember it for very long). But don't worry! We humans are all basically designed that way. Remember, the average amount of information we can hold in our working memory is about *seven items, plus or minus two*,[‡] so don't feel bad!

Even if you're familiar with the area code, you're still looking at seven pieces of information. One way to think about a phone number is that it's just a list of seven items. You already know how to store lists efficiently using either the Linking Method (see this page) or the Journey Method[§] (see this page) and now all you need to do is turn those abstract digits into something concrete that you can visualize.

Aside from assigning each singular digit an image, as we did with Number-Rhyme or Number-Shape systems, the simplest way to remember a telephone number is by trying to look for patterns or recognizable strings of numbers within the actual number and to group or chunk them together (grouping multiple digits together to represent one thing is what we call “chunking”). For people who aren’t very good with numbers or have no interest in anything numerical, this can be quite difficult. People who are avid runners (obsessed with times for marathons, half-marathons, miles, etc.), analysts, sports fanatics, or accountants (you get the idea) can probably extract *some* meaning from a string of digits. In a famous memory study at Carnegie Mellon University,[1] in which college students were tested repeatedly on their digit span capabilities (numbers were recited to them aloud and they had to see how many they could remember), one participant was initially capable of storing only seven digits at a time but gradually managed to get to a mind-boggling eighty-two digits (without any memory coaching)! How’d he do it? He happened to be a competitive long-distance runner, and after a bit of practice with the memory task he started imagining parts of the numbers as times he ran a marathon in or the distance in feet of a run he knew very well, etc. He was essentially linking all the numbers into a long, meaningful story about what he loved: running.

Check this out. If I ask you to glance at the following number (I’ll admit this is absurdly long for a phone number, but stick with me . . .) and memorize it, you probably won’t do so hot:

0 9 1 1 2 0 0 1 1 2 0 7 1 9 4 1 0 6 0 6 1 9 4 5

But what if I told you that it was actually three important dates from American history?

09-11-2001 ***PHONE NUMBER***	

That was a heck of a lot easier, right? Almost zero effort. Suddenly that number has tons of meaning and is almost unforgettable. Isn’t that incredible? From one moment to the next: forgettable, then UNFORGETTABLE. There are two things at work here: First of all, we just turned the numbers into something meaningful; secondly, we grouped the numbers into manageable, date-size chunks, so that the number became three things instead of twenty-four things.

If you can, try to look for chunks of numbers that remind you of

famous (to you, anyway) or familiar numbers and link them into a quick little story. If you need the number stored a little more permanently, refer back to that beast of a technique, the Journey Method (from chapter 4, this page), and store them properly.

Now, let's get into the good stuff.

THE MAJOR SYSTEM

To really become proficient in memorizing numbers, we need to be able to read them as easily as we read words. We'll get into some more complex number systems further on, but if you want a system that can be your go-to when you find yourself in a fix and need to remember a number instantly, then the Major System¶ is your best bet —and it takes only a few minutes to learn!

The basic principle of the Major System is to turn each digit you want to memorize into a *consonant* sound. By connecting those consonant sounds and stuffing any vowels that make sense in between and around those consonants, you can create strings of words that you can then visualize and store.

I know numbers can seem intimidating, but honestly the hardest part of this system is remembering which consonants represent which numbers—and it's actually a breeze to learn. Watch! On the next page are the ten digits and the consonant sounds they represent. I'll even share a quick mnemonic to help you remember each one.

Okay, so once that's memorized, then what?

To take a number and turn it into a word based on the Major System, simply study the number and figure out which consonant sounds the digits represent. At this point, you won't have a word; it will just be a jumble of consonants (and not that memorable).

The next step is to squeeze in some vowels wherever you like and feel is appropriate to turn that mush of consonants into a real word. Think of it this way: Vowels are free, and consonant sounds stand for numbers. Since it's a *phonetic* system, the spelling doesn't really matter; it's all about the sounds. For example, a word like spaghetti, even though it has a lot of letters, only represents four consonant sounds: s (0), p (9), g (7), and t (1). The h is silent, and the extra t is technically a part of the single t sound in the word. The words can be as long or as short as you want, which is one of the advantages of this system—you have tons of flexibility.

THE MAJOR SYSTEM

The Z in "Zero" should make you think of the sound	s, z, or soft c	0
Both t *and* d *Require you to write one downstroke, which looks like the number 1.* t *and* d *also share a similar sound*	t, d	1
Because n *has two downstrokes*	n	2
Because m *has three downstrokes (also, flip that 3 over and you've got an* m*!)*	m	3
The last letter of four is R	R	4
If you hold up your left hand, which has 5 fingers, the shape between your pointer finger and thumb makes an L *shape*	L	5
6 looks like A G; j, sh, J, and s *(as in "ge nuen") and* g *(as in "ge nuen") because they sound similar*	j, sh, J, and s	6
The capital K, when cashed, bar degrees in "gamble", looks like two mirror images of sevens back-to-back. see it?	k, c, and K, when cashed, bar degrees in "gamble", ck, q	7
The cursive lowercase f *looks like an 8;* f *and* v*, both similar sounds*	f, v	8
9 Looks like a mirror image of p, b *which looks like an upside-down lowercase* b	p, b	9

LET'S TRY A FEW TOGETHER

EXAMPLE 1—86

First, let's turn these two digits into their possible consonant sounds. The basic breakdown is:

(F or V) + (J or SH or G or CH)

How can we fill in the gaps with vowels to make it into a real word? Let's play around with it a bit. There are a few combinations, but how about: FOG, FISH, or FUSCHIA? Remember, it just needs to have those two consonant sounds (forget spelling) when you say it aloud. I like FISH, because it's an easy word to visualize.

There you have it! 86 = FISH. If you saw the number 86, you could instead memorize the word FISH. When you are recalling your images later on and you come to FISH, thinking back to your Major System phonetic code, you simply parse out those consonant sounds (F and SH) and turn them back into digits (8 and 6 . . . 86!).

EXAMPLE 2—35

35 breaks down to:

(M) + (L)

We can insert some vowels in and around those letters for a few choice options of words: MAIL, MALE, MOLE, EMAIL, MILE, MULE . . . you get the idea. I personally would choose MAIL.

EXAMPLE 3—27

27 breaks down to:

(N) + (K or C or G or CK or Q)

NOKIA, NAG, NOG, KNOCK (that first K is silent, so it's okay).

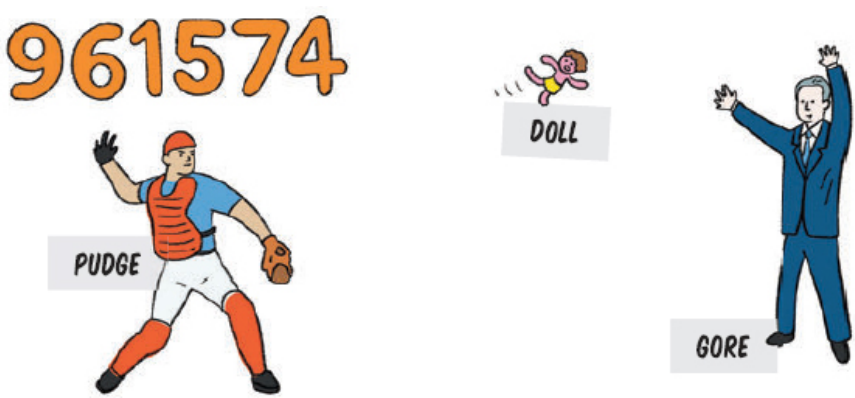
EXAMPLE 4—323

Let's go up to a three-digit number. 323 breaks down to:

(M) + (N) + (M)

The larger the number gets, the more difficult it is to find one single word. Try your best, but if you can't, just break it down into multiple words and **LINK** those words together. With these consonants, we have AMMONIUM (double M counts just as a single M sound, so no worries), or how about MINI-ME (from the Austin Powers movies)? Or maybe M&M's (the chocolate candy)?

EXAMPLE 5—961574



Let's go back to a six-digit number I mentioned before—961574. The basic breakdown is:

(P or B) + (J or SH or G or CH) + (T or D) + (L) + (K or C or G or CK or Q) + (R)

With six consonant sounds, you'll be hard-pressed to come up with a single memorable word, so let's look at our options here: If we split it into two sets of three digits (961 and 574), our first half could be PATCHED, BATCHED, PITCHED, BITCHED, BOTCHED, or BUDGET. Our second half could be LACKER, LICKER, LIQUOR, LOCKER, or LUGGER. You can make this work, but there are a few issues. For one, out of all the first-half options, only BUDGET is a noun, and it's not an easy one to visualize. Moreover, the other options are all one syllable each, which may make you forget the D sound at the end (unless you're a Shakespearean thespian and you pronounce everything in iambic pentameter, e.g., "bitch-éd"). The second-half options are better, except maybe for LACKER, since it's hard to visualize a person who specifically doesn't have something, especially if that something is a budget. These words are still doable, but maybe not the most memorable.

So three and three was a bit weak; let's try two-two-two (96, 15, and 74). Our first options are now PAGE, BADGE, PATCH, BATCH, PITCH, BITCH, BOTCH, PUDGE, and BUDGE. Looks like we have some good choices. I lean lean toward PAGE and PUDGE. Our middle options are TALL, TELL, DELL, TILL, DILL, TOLL, DOLL, and DULL. And our last options are CAR, GRR, CORE, GORE, and CUR. There's plenty of good stuff to work with here. You could picture putting a PATCH on a TALL CAR, or PUDGE Rodriguez (the former all-star catcher) throwing a DOLL at Al GORE, or Jimmy PAGE (with his long, curly hair, playing electric guitar with a violin bow) and the flute player from Jethro TULL (his name is Ian Anderson, but I have no idea what his face looks like, so I just picture a hippie in a leather vest playing the flute) jamming out in the back seat of a CAR.

PRO TIP

Don't feel discouraged by this code system. If you've ever had to learn a language, you know that it takes practice. You have to use it frequently for it to become internalized—in other words, for you to become fluent. So with a bit of practice, reading numbers as words, and words as numbers, will become easy. Numbers are everywhere, so when you're bored in traffic, try converting the license plates around you into words! It's great practice.

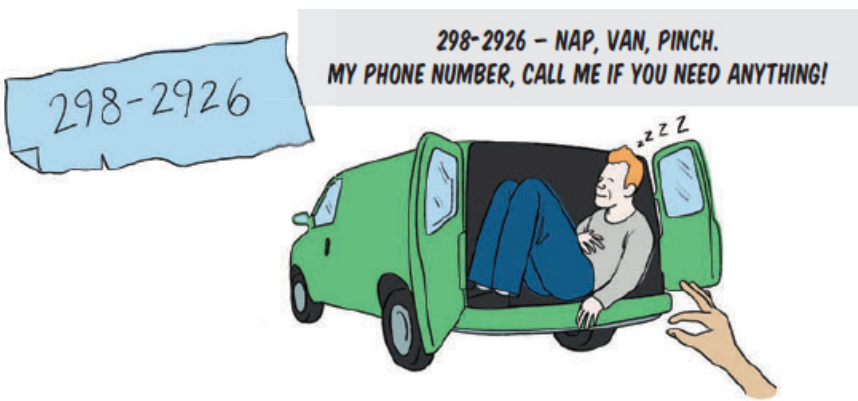
Alright, shall we try our first phone number together? Let's start *without* an area code or assume you know the area code already.

EXAMPLE 6—Nelson, the tall ginger sitting at the bar—his phone number is 298-2926.
Our number breaks down to:

(N) + (P or B) + (F or V) + (N) + (P or B) + (N) + (J or SH or G or CH)

Since it's a longer number, let's just break it into smaller segments so we can find words quicker. 29 could be NAP, 82 could be VAN, 926 could be PINCH. So NAP-VAN-PINCH. Just think of taking a NAP in a VAN and getting PINCHed to wake up. That's the image for the phone number, but how do we tie it to the person it represents? Well, in this scenario you've met me at the bar. It all depends on what you learned about me from our interaction. Maybe it was a quick "Hey, can I get your number?" In which case, there was no real interaction and you would have to use my looks and features as an anchor. Maybe we talked for an hour and you learned that I've climbed Everest three times. That's pretty memorable, so that could be your anchor. Whatever your anchor ends up being, just **LINK** it to your story for the phone number. Let's just take my looks as the anchor for this example. Why not picture a massive red-headed giant taking a NAP in a VAN and you have to PINCH him to wake him up?

If you need to add an area code to the number, you're just adding an extra small word or two to your story. No big deal!



PRO TIP

When I ask people for their phone numbers, I usually lead by asking them what their area code is. If it's local and I'm familiar with it, I don't really need to memorize it, and that makes the

rest of the number easier to memorize. If it's an area code I don't know, then I'll stop them before they tell me the rest of the number, and ask them about it—where's it from? This stalls them a little bit while I come up with a word for the area code. It also helps me chunk the number into smaller, manageable pieces. If someone rattles off a ten-digit number without a pause, that's tricky to remember. But if I can break it into three digits—area code, then another three digits (the first part of the number), then the last four—I'll be in good shape.

By now you may have noticed that taking a sequence of numbers and trying to find words within it using the Major System isn't necessarily a quick process. It can get faster if you train, but in general you might be spending a lot of time trying out certain groups of numbers to see if they create a word or not. One way around this (and a way to get faster at the encoding process) is to create a fixed Major System. Decide on a fixed grouping of digits and then pre-learn all the words for all possible combinations of those groupings. It's a bit of work, but it's worth the effort.

Most people will start with a two-digit Major System, deciding on a fixed image for 00 and working through all the two-digit pairs up to 99. For example, 76 is always CASH; 89 is always FIB—you get the idea. Once you have all those images learned, you can take any number (no matter how long), split it up by twos, and then use a Journey, Peg List, or the Linking Method to store the images. To see my suggested fixed two-digit Major System, head to the appendix (this page).

DON'T FORGET YOUR PASSPORT!

HOW TO REMEMBER YOUR PASSPORT, SOCIAL SECURITY, AND CREDIT CARD NUMBERS

Phone numbers aren't the only numbers we tend to be weak at remembering—how about all those other key numbers in our lives? I'm talking about social security numbers, passport numbers, sixteen-digit credit card numbers, and the like. Using the Major System for numbers like these is doable, but it can be tricky because for larger numbers we end up with a lot more images to remember. If we're remembering a lot of digits, we need to be more mindful of *chunking*. Remember, chunking is when you consolidate multiple images into fewer images. The question becomes, how can I reduce the number of images I need to create? Thinking in images is great and all, but why

memorize four, five, or even six images for one number, when you can compress it into just one or two?

Another downside to the Major System is that it doesn't have a fail-safe mechanism for remembering the *order* of words in an image. Sure, you can picture PAGE and TULL in a CAR, but what if you misremember it as TULL first, then PAGE? You can always make the extra effort to really picture one image happening before the other, but I'll tell you right now that this is one of the most common mistakes made in memory competition—flipping two or three words around. It's a killer.

Enter the Person-Action-Object System (or PAO, for short), my personal favorite and go-to number system for the majority of things number-related. With this system, we officially step foot into the world of more formalized systems—systems that are fixed so that every time you see a specific number, it is always the same image. As mentioned previously, these kinds of systems take a little more time to master because you'll need to learn all the images. But trust me, the investment of time in learning this system will benefit you for the rest of your life.

Using the Major System, we can look at the number 961574 and translate it into Jimmy PAGE for the number 96 (96 = PaGe), Jethro TULL (i.e., hippie flautist) for 15 (15 = TuLL), and Al GORE for 74 (74 = GoRe). We would then **LINK** those three images together in a specific order to remember that the sequence was 961574, rather than 159674 or 749615. However, with PAO, rather than using three distinct images and linking them together, we are going to stick to a formula of Person first, Action second, Object third. Every image we create is going to adhere to that structure. What you're left with at the end is *one* picture that, yes, has three distinct components to it but is smooshed into one cohesive unit that really **GO!**s.

So I would start by imagining Jimmy Page as our Person (since he was first in the sequence), performing the second person's Action (Jethro Tull's action is playing a flute), with the third person's Object (Al Gore's object could be a globe because I picture him saving the planet with his documentary *An Inconvenient Truth*). So if I think of Jimmy Page playing the flute and globes flying out of the flute as a result, I know the correct order is 961574. The person always comes first, followed by some action, ending with some object. It's kind of like the game Clue: It was Colonel Mustard in the library with the candlestick! Again, the advantages to using this system are:

1. **Chunking**—By consolidating numbers, you get more bang for

your buck. Or rather, more digits for your one image.

2. **Fixed structure**—Having a fixed structure for your images, where everything follows the rubric of Person-Action-Object, helps you during recall. If you can't remember a sequence, you *know* it is always going to be a person followed by an action followed by an object, allowing you to think through all the possibilities.

3. **Familiar images**—Because you know all of your images from 00–99 and because they won't change, it will help you nail your number sequences, as well as increase your memorization speed since you don't have to come up with new images each time. Also, people tend to be a lot more memorable than random words (such as the words you might end up with for the Major System).

THE PAO PHONETIC SYSTEM

Rather than use the Major System phonetic code, the PAO System has its own optimized code we can use. In a nutshell, the PAO System is a stripped-down number language, using only ten letters of the alphabet. Instead of organizing numbers by shapes and sounds, PAO organizes them simply by their order in the alphabet, with three exceptions:

O	***0 (Easy to remember because a zero is round like an O, duh!)***
A	***1***
B	***2***
C	***3***
D	***4***
E	***5***
S	***6 (More common than F, and easy to remember because six starts with S)***
G	***7***
H	***8***
N	***9 (More common than I, and easy to remember because nine starts with N)***

Now, you may have noticed that in all of my examples thus far, I tend to lean toward breaking up digits in pairs. Using the PAO System, we are going to stick to this rule (for now), so whenever we look at a number we are going to break it into segments of two digits. This means that the one-digit numbers from 0–9 don't exist in this

system. We're always memorizing in twos, so technically 00 is our 0, and 01 is our 1, and so on. Also, because it's a two-digit system this means that a set of Person-Action-Object will *always span six digits* (two digits for the person, two digits for the action, and two digits for the object). Make sense? Once you have that phonetic code list in your head, the next step is to use it to assign meanings to every possible pair of numbers; that means 00 all the way to 99. And as implied in the name of the technique, the meanings we are going to come up with for each digit pair are a person, an action, and an object. Okay, let's dive in to create your PAO list!

FINDING THAT SPECIAL SOMEONE

First, you'll need to come up with the people associated with each two-digit number (we'll work on the actions and objects afterward). You can do this in three stages. Before we begin, though, grab a blank sheet of paper and write down a list of all the numbers from 00 to 99—one hundred number pairs in all. Let's start filling out this list, shall we?

STAGE 1 – IMMEDIATE ASSOCIATIONS

On your first pass, I want you to temporarily ignore the PAO System and scan all the numbers you wrote down from 00 to 99. Just look at the numbers. Do any of them immediately jump out at you? 05 makes me think of a $5 bill, which has the face of Abraham Lincoln on it, so I made him that number. My favorite number is 12, so I took it for myself. Another easy one was 66—that had to be Satan. As a sports fan, I had quite a few stand out: 24 was Kobe Bryant, 23 was Michael Jordan, and 34 was Shaquille O'Neal.

Even if you're not a sports fan, you'll probably still have some immediate associations. For instance, if you're a Beatles fan, 64 might make you think of the song "When I'm Sixty-Four," so that can be Paul McCartney. If you want to work in John Lennon, you could give him 08, as in "Eight Days a Week" (even though Paul wrote that one too).

As you scan the numbers, if you pause on any for more than half a second and nothing comes to mind, skip it. You'll come back to it later. The point here is to take care of the low-hanging fruit: the numbers that *already* have a personal meaning to you without the use of a phonetic code.

Taking care of those immediate associations is important because ultimately, once you have the whole PAO list completed, you'll then

have to learn it. And if there are some numbers you just *know* and don't need to learn (i.e., those immediate associations), the easier it will be to master the entire list.**

STAGE 2 – PAO ASSOCIATIONS

Now we're really cooking! Coming up with images for the remainder of the numbers will start to get a bit more challenging, because you'll have to start thinking a little harder to come up with people, actions, and objects who fit the PAO System. With the PAO phonetic code, we won't be creating words with consonants and vowels. Instead, we'll use the two letters as initials, representing the name of the person (most of the time). If you get really stuck on a set of initials, you can still skip it and come back to it in Stage 3.

Even though the "P" in "PAO" stands for "person," you should think of it in the loosest possible sense. For instance, with the number 06, I couldn't picture anyone with the initials O.S., but seeing those letters made me think of Mac OS X and therefore of Steve Jobs. 80 is H.O., as in "Ho! Ho! Ho!" so that's Santa Claus. Be careful with things like 75, G.E., which might make you think of General Electric but not necessarily any particular person with a noteworthy action and object; it's key to come up with *people* first, not things.

Sometimes you may have to tweak certain people a bit in order to make them more memorable. When I was creating my system years ago, I made George Clooney (G.C. = 73) into Batman—because even though his performance as Batman in *Batman & Robin* was utterly forgettable, George Clooney as Batman was still way more memorable than any of his other roles (at least to me). Another one is 35, C.E.—Clint Eastwood—but I don't picture him in his everyday life, I think of him as the Western gunslinger "Man with No Name" from *The Good, the Bad and the Ugly*. 36 is C.S., which I associate with the video game *Counter-Strike*, which I used to play using a sniper character, so a generic sniper is my 36.

Those are just a few examples from my own system, and you should feel free to use them if they work for you. But the most important thing is to be able to quickly take a number, translate it with the PAO System, and instantly know which person corresponds to those two letters.

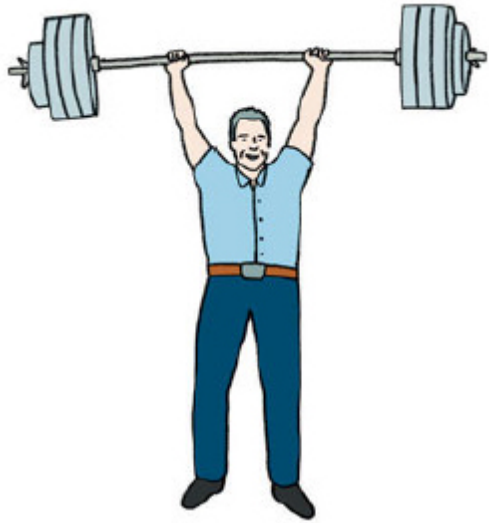
STAGE 3 – FILL-INS

After two passes through all one hundred two-digit numbers, you may still find some blanks. Maybe if you think hard enough, the letters will

remind you of something, and maybe you'll decide to make a few exceptions where you use the Major System to come up with people. Or as a last resort, you can refer to my starter list in the appendix (see this page) for a bit of help. Chances are, no matter who you put in those spots, you'll need to practice your system for a little while before you start to quickly make the connection between those numbers and their associated people. My best advice, then, is to try to come up with the people and characters who are the most distinct and memorable to you: friends, family, current and former significant others, unique movie and cartoon characters, even pets. Assign those to your remaining numbers and just learn them.

WHAT NOW?

Now that you have your complete list of one hundred people, you'll need to go back over each one and think of what their associated actions and objects are. Remember, the way PAO works is that each two-digit number represents a person, an action, *and* an object. The way I want you to do it is by imagining the person in question and asking yourself, "What do I automatically think of this person doing?" Then ask yourself, "What object comes to mind when I think of this person doing that action?" For example, let's say you decided that 16 was going to be Arnold Schwarzenegger (A.S. = 16). If you asked yourself what action you pictured Arnold doing, you might instinctively think of him lifting weights. What about his object? A barbell, of course! So then we have the number 16 representing three things: ***Arnold, weightlifting, and a barbell—person, action, object.*** Based on the number's position in a six-digit chunk, if 16 shows up as the first two digits, it's Arnie (the person). If it shows up as the middle two digits, it's someone else (whoever the person is represented by the first two digits) performing the action of lifting something (Arnie's action). Then finally, if it shows up as the last two digits, it's someone doing some action with . . . a barbell (Arnie's object).



How about Albert Einstein (A.E. = 15)? I picture him scribbling on a chalkboard and his object being said chalkboard. So 15 is now Albert Einstein, writing on a chalkboard, and a chalkboard. All three things are linked together, you see, so you don't really have to memorize anything extra.

Your actions and objects should be mostly intuitive, but you might have a few stragglers where you'll have to do a bit of research or make some stretches to assign a unique action and/or object. More important, make sure that all of your actions and objects are unique. You don't want two different numbers claiming to be the same action or object because that will make it a nightmare for recalling numbers—how will you be able to tell the difference? Yes, I know it seems that coming up with one hundred actions or objects might be challenging, but it's not. You might come up with actions or objects that are very similar, but as long as they are not the exact same thing you should be fine. For example, in my PAO list, both 35 and 36 have shooting as their actions and guns as their objects: an old revolver, held in one hand, that makes a loud *bang* sound versus a rifle, held with two hands, that makes a whizzing *zip* sound. Very similar, but distinct enough that I can tell them apart whenever I go back over a journey and come across one or the other.

Now that you have a complete two-digit number system, give yourself a pat on the back for being so committed to memory (pun intended!). How do we use it? As I mentioned before, whenever we see a sequence of numbers, we break it into chunks of six. Each chunk of six then gets broken into three parts: two digits for the person, two

digits for the action, and two digits for the object. If I was looking at the number 163515, I would break it into 16-35-15. Then, referring to my PAO list, I picture the person associated with the first two-digit number, the action associated with the second, and the object associated with the third. In this example, our person is Arnold Schwarzenegger (16), our action is shooting (35—remember, 35 is C.E., or Clint Eastwood, but because it is the second pair of digits, we use his action), and our object is a chalkboard (15 was Albert Einstein, whose object was a chalkboard). Put it all together and you get a seriously unforgettable image: Arnold shooting at a chalkboard!

What can you do with this system now that you've learned it? Well, there's a lot you can do straight off the bat—but remember, you might be a little slow at encoding and translating the numbers when you first start. The speed will come with practice. The more you use the system, the more number-fluent you'll become.

Coming up with the images is all well and good, but how do you *store* the numbers? Same as everything else—**LINK** it by using an anchor point or a series of them along a journey. Don't forget, the memorizing process is always more or less the same: **SEE—LINK—GO!** But this is where it gets really fun, because now you'll get all sorts of weird scenes happening all over your house (or any memory journey of your choice).

PRO TIP

I would suggest creating a journey dedicated solely to all of your personal numerical data: social security number, passport numbers, policy numbers, credit card numbers. If you want to be really organized, why not choose a room or location in your house that associates with the thing you're memorizing so that it's quicker to access? For example, maybe I'll store the credit card number sequence in my room near the computer, since that's probably where I use it the most when ordering things online. In addition, maybe I'll add a little extra image on that location to help me quickly remember *which* card it is. If it's a Bank of America Visa, maybe I'll mentally hang an American Flag (Bank of *America*) with Morgan Freeman's face on it in place of stars (I think of Visa when I think of Morgan Freeman since he narrated those Visa Olympics sponsor commercials) above the computer. Maybe my social security number can go near the filing cabinet in my office, since that number is something I might file away in my office. You get the idea.

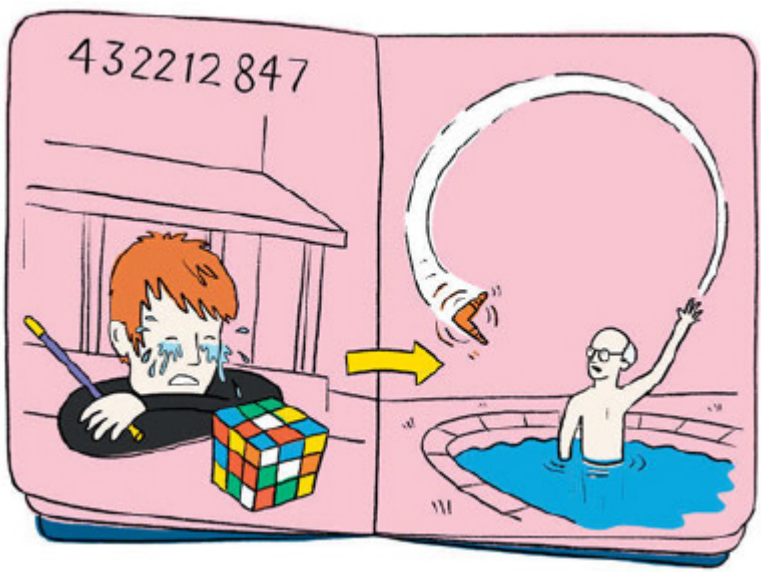
LET'S TRY A FEW TOGETHER

EXAMPLE 1—Passport number: 432212857

If we use my system (refer to the appendix on this page), the number breaks up into: **43-22-12 // 84 – 7**

Notice this number isn't a perfect series of six-digit chunks. That's okay; for that last set of three I'll simply use the person and then maybe use the Number-Shape System to come up with a quick action or object image for that sole last digit. Those chunks translate to:

1. ***A MAGICIAN CRYING ON A RUBIK'S CUBE.***
2. ***LARRY DAVID HINGING A BOOMERANG.***



Now to store it. If I was using my backyard as my memory journey, I'd imagine a magician sobbing incessantly all over a Rubik's Cube on the back porch. Then as I progress down to the pool next to the porch, I see Larry David throwing a boomerang to himself as he wades in the pool.[††]

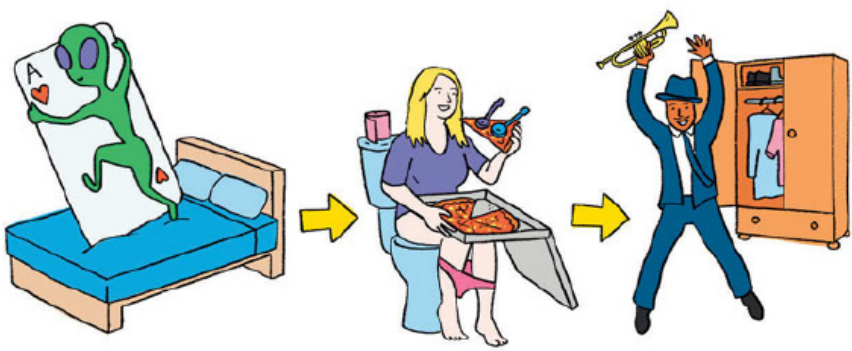
EXAMPLE 2—16-digit credit card number: 4758402678314509

If we use my system (refer to the appendix on this page), the number breaks up into: **47-58-40 // 26-78-31 // 45-09**

Notice this number also isn't a perfect series of six-digit chunks. That's okay, for that last set of four I'll just do Person-Action. Those

chunks translate to:

1. ***AN ALIEN CLIMBING A PLAYING CARD.***
2. ***BRITNEY SPEARS EATING A SLICE OF PIZZA WITH BANJOS AS TOPPINGS.***
3. ***DUKE ELLINGTON DOING JUMPING JACKS.***



If I was using my standard house as my journey, I'd imagine the alien climbing a card on top of my bed (first location of my journey), Britney Spears eating a slice of pizza with banjos as toppings while sitting on the toilet (second location), and then Duke Ellington doing jumping jacks near the closet (third location). Isn't that absolutely bizarre? But fun, right? And, above all, it's memorable.

Once you have a system, you'll be able to start applying these strategies everywhere you encounter numbers. I should mention that even though I've shown you a few different systems for memorizing

numbers, they all work! Some better than others, depending on the situation, but you can use whichever one you want, whenever you want. In theory, you could use the PAO System for all of your number-memorizing needs. It's up to you. In my opinion, PAO is fun and leads to some really memorable images, so that's what I use in nearly 99 percent of number-memorizing cases! I mean hey, if imagining Clint Eastwood sliding down a chimney in high heels helps me memorize my credit card number, I'm in.

I SHOULD PROBABLY START THINKING OF WHAT PRESENT TO BUY

HOW TO REMEMBER IMPORTANT DATES (ANNIVERSARIES, BIRTHDAYS, AND SPECIAL OCCASIONS)

The famous line goes: If you want to remember your wedding anniversary date forever, just forget it once. Clichéd marriage jokes aside, you're now armed to the teeth with a grab bag of number memory systems to help you remember important dates. I'll show you a few ways to do it, but my favorite is one that builds off the PAO System.

The general approach is as follows. You have a person or an event–some *thing* that has a date attached to it. That date is going to be a month and a two-digit number for the day. Possibly even a two-digit year as well. That month can be seen as a word (January, February, etc.) or a number (01–12). So what we will do is come up with an image for the date—either a four-digit combo (month, day) or a six-digit combo (month, day, year). Once you **SEE** that image, **LINK** it to the person or event that the date reminds you of. Then **GO!**

USING A MIX OF THINGS

Let's say you're not interested in mastering one of the number systems from this section. Are you out of luck and doomed to never remember a date again?? Nah, of course not. There's always a work-around. (I highly suggest using a number system, such as Major or PAO, but if you're totally number-phobic and refuse, just do your best.) First, the month. Instead of looking at it like a number, think of an association with each month—maybe a big holiday that happens during the month, a color that the month evokes, or whatever comes to mind. July might make you think of a big bright yellow sun because it's smack in the middle of summer. February might make you think of a big pulsing heart because of Valentine's Day. November? A turkey

gobble-gobbling his way around a coop. Then, for the number representing the day, do your best to come up with some image related to it. The 12th might make you think of midnight or lunch time (12:00). A 13 might make you think of unlucky 13 or the movie *Friday the 13th*.

LET'S TRY A FEW TOGETHER

EXAMPLE 1—Your cruise vacation leaves on August 18.
August reminds me of back to school. So my image for August will be a little kid wearing his backpack and school uniform. Not using any of my number systems, 18 makes me think of an angsty eighteen-year-old. So my image for the date will be a little kid decked out to the nines in back-to-school gear, but he's going in as a senior, surrounded by eighteen-year-olds. Next, we **LINK** that image to the event so we can remember what that date represents—in this case, the cruise. Let's imagine this kid, and the first day of school is on a cruise ship. Putting it all together and adding a little bit of **GO!** to it, let's take it further and say that maybe the kid shows up for school and the seniors (all eighteen-year-olds, of course) have played a senior prank in which they placed a massive cruise ship (don't ask me how) on the football field.

Now when someone brings up the cruise, I'll immediately think of the cruise ship on the high school field as a senior prank. I'll think August (school kids) 18 (eighteen-year-old seniors). There you have it: August 18 is the cruise!

USING THE MAJOR SYSTEM

Using the same technique as in the previous example, we now have the added advantage of knowing how to translate numbers into words.

EXAMPLE 2—Your wedding anniversary is October 8.
October is the tenth month of the year, which translates to:

(T or D) + (Z or S)

Some of my word options here are: TOES, TAS, TEASE, DAZE, DAYS, DOZE, DOSE. I like TAS as in Tasmanian devil. For the day, let's look at it as the two-digit number 08 so we can create a word from it:

(Z or S) + (F or V)

My options: SOFA, SAFE, SAVE, SEIVE. I like SOFA. When I put it all together, my image—TAS, SOFA, and my wedding (I'll picture my wife in her gorgeous wedding dress)—has me picturing my stunning bride walking down the aisle only to be met by a Tasmanian devil spinning and thrashing to threads a sofa that happens to be up at the altar. I'll never be able to erase that crazy image from my mind, and as a result I'll be in good standing with my wife every year when we come around to October 8! Phew!

BRIDE WALKING TOWARD TAS ON A SOFA = OCT. 8 WEDDING ANNIVERSARY!

USING THE PAO SYSTEM

I love this approach because it's so elegant and simple. The only downside is you need to have your two-digit PAO System all set and learned. PAO almost feels like it was perfectly designed to memorize dates! Use the *actual* person that the date refers to as the anchor point (if it's an event, think of some person related to the event) and have *them* perform the action that represents the two-digit month with an object that represents the two-digit day. (See this page for my full PAO list, which I'll use in the examples to follow.)

EXAMPLE 3—My mom's birthday is July 24.

July is the number 07, the day is 24, so I'll always picture my mom sipping on a martini filled with basketballs (07-24). So fannnncy!

EXAMPLE 4—An important networking event is on November 1.

November is the number 11, the day is 01, so I'll picture my boss running an event while playing tennis with an ax (11-01). Yeah, he has an anger management issue!

EXAMPLE 5—Same networking event, but let's add a time: November 1 @ 7:30 P.M.

We have the image for the event and date, but how can we add the time? Let's just add an extra small detail to that image to represent the time. I'll think of 7 as an object (07 is that James Bond martini glass). Rather than use our image for the number 30, let's just think of any half hour as cutting our object in half! Let's recap. We have your angry boss setting up and running an event while playing tennis with an ax. He's swinging that battle-ax around like it's a tennis racket. One of the objects of his wrath happens to be a martini glass that's sitting there by itself on a table. *SHLINK!* It gets sliced right in half! Martini-half, Martini-30, 7:30. Voilà!

SECTION 3 — THE COMPLICATED NUMBERS

There are a few instances where we need to deal with numbers that are a lot more complicated. I mean numbers that have letters and/or symbols mixed in—yikes—or numbers that are really, really long—double yikes! Both of those situations can make things a lot more complicated, but they're nothing our set of skills can't handle with a bit of strategy.

P@55WORD$ @R3 H@RD. HELPPPP!

NEVER GET LOCKED OUT OF YOUR ONLINE ACCOUNTS AGAIN

It seems that every week I'm checking out some new site that asks me to set a password. Even the ones I don't use anymore still have a password on file for me. And even when I think I've come up with the perfect, uncrackable password (&V&5TyeM@EY$, for example), I find out that hackers have new-and-improved methods to beat my kind of system, and I have to change it again. Before I started learning memory techniques, I couldn't even keep track of which sites I'd changed my password for, much less keep track of a unique password for each site I used. I know I'm not the only one; this kind of frustration is so universal that I'm dedicating multiple pages of this book to overcoming it. But don't despair! There's a simple antidote, and the memory skills you've built up so far have prepared you to implement it.

A few years back, security consultant Mark Burnett published a list of the ten thousand most popular passwords, pulled from various public sites where hacked databases have been shared. Do you know what the top three passwords were? "Password," "123456," and "12345678." If you just said, "Hey! That's what I use!" you're obviously not alone—and in fact, 9.8 percent of the six-million-plus username/password combos that Burnett collected included one of those three combinations. Much further down the list you can find passwords like "rasta420," "trousers," and "booyah." Unfortunately, these are just as hackable as "password." You don't want your password to be one of the ones on Burnett's list—or one from any of the many, many lists of already-been-cracked passwords floating around. They may be memorable, but they're definitely not good.

A good password is not just memorable but also unique and hard to crack. And as hackers amass more and more lists and use more and more computing power, it takes increasing complexity to create a good password. Don't worry, there's a way to come up with complex passwords you can still remember, and we'll get to that process in a moment. First, though, we need some basic guidelines for creating really strong, unhackable passwords . . .

1. **Go long**—The longer your password, the longer it will take to crack; anything under seven digits can be cracked in minutes, whereas adding an extra few digits can take years or even millennia.

2. **Randomize**—Any sort of identifiable sequence of characters such as a word, a date, or even a keyboard pattern (e.g., "qwerty") can

be a giveaway. Even if you string four common words together, it's not much more effective than stringing six or seven random characters together. And if someone is going after you personally, the first things they'll try are words (such as your alma mater) and dates (anniversaries, relatives' birthdays) in your public social media profiles.

3. **Be unique**—Don't just create passwords that are different from the ones everyone else uses. Create unique combinations for every website you use—or at least the ones that carry sensitive personal information (such as email, banking, and social media accounts).

If you really wanted to create the most absolutely forgettable piece of information possible, it would have all the attributes of a good password: a long, random, unique string of abstract symbols with no dictionary words or names. Further complicating things, you'd have some uppercase letters and some lowercase. And to make it even harder to remember, you don't get any helpful tips when the time comes to recall it. Even if you pulled off the extraordinary feat of nailing fifteen characters in a sixteen-character string, you'd be just as locked out as you'd be if you got every character wrong. (There's no website in the world that would tell you, or anyone trying to guess your password, "Wrong password, but good effort—everything but that seventh character is correct.")

Symbols, uppercase letters, and all those other password features that websites require of you these days apply to the most commonly cited strategy for creating hard-to-crack passwords: the so-called "Schneier scheme," named after prominent security expert Bruce Schneier, who first proposed this trick back in 2008 in an article for the *Guardian* newspaper. The process involves turning a popular phrase into a sort of jumbled semi-acronym, such as "tlpWENT2m" ("this little piggy went to market") or just a random phrase like "WIw7, mstmsritt . . ." ("When I was seven, my sister threw my stuffed rabbit in the toilet") or "Wow, doestcst" ("wow, does that couch smell terrible"). It's a really good strategy for long, random, unique passwords . . . but a terrible strategy for making memorable ones. How do you remember which letters to capitalize? How do you remember which words to spell out? And if you use the Schneier scheme repeatedly for different sites, how do you remember which passphrase is the right one for each site?

Fortunately, we know plenty about how to make random, abstract information more memorable—by converting it into mental pictures

and creating anchor points for storage. So how do you apply the principles of **SEE—LINK—GO!** to passwords? You could apply them any number of ways, but the one crucial factor is that you apply them consistently, with the same system for every single password you create. If you were to use a Number-Rhyme System for some passwords and a Number-Shape System for others, you'd confuse yourself as much as any potential hacker. But you don't have to spend too much time trying to invent your own system. You can just use a simplified version of my favorite system: Person-Action-Object, or PAO, which we discussed earlier in this chapter, on this page. This process not only allows you to create easy-to-store, easy-to-remember mental pictures and stories; it's also the best way to chunk bits together (i.e., multiple pieces of information in a single mental image) while keeping the order straight. But don't worry, I'll walk you through each part of the process. Let's get started!

SEE

When you use the PAO System to come up with a password, you have the luxury of choosing any people and actions you want (the objects are a little less flexible, but we'll get to that shortly). In theory, you could start off by coming up with a string of letters, numbers, and symbols that fit the pattern, then figuring out what to make them stand for. But it's better to pick memorable, distinct people, actions, and objects and then abbreviate them. I'll explain how to come up with all the components—but for the sake of reference, here's what a PAO password will look like in the end: CXcˆJEJs$Me8.

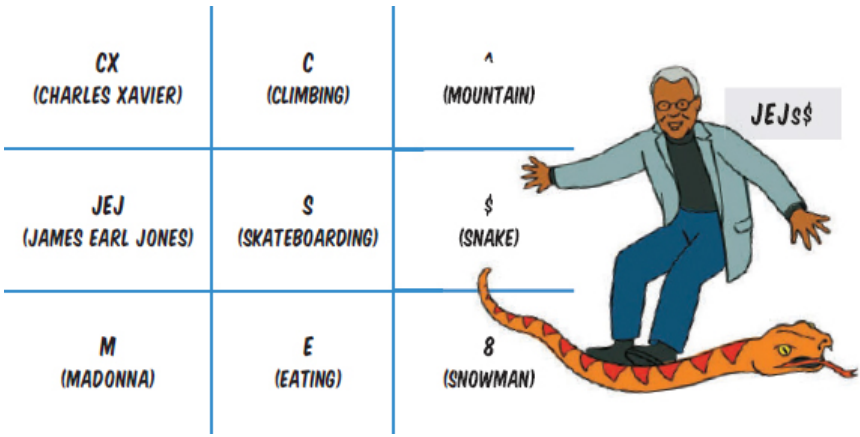
If you notice the pattern, it's that there are one, two, or three capital letters, followed by a single lowercase letter, followed by a symbol or number, and then all of that is repeated twice. The story behind this password is: Charles Xavier (aka Professor X from X-Men) climbing a mountain, James Earl Jones skateboarding on a snake, and Madonna eating a snowman.

The first thing I did was come up with three memorable, unique people. For me, this is the way to go: choose two or three people, give them each actions and objects, and then work on deconstructing them into password-ready form. You don't have to use my formatting rules (make up your own, if you like!), but I will always:

1. **Use all capital letters for the initials of my person.**
2. **Use a single lowercase letter to represent the first letter of my action.**

3. **Use a single non-letter character to represent what the object looks like.**

So, here is the password, explained piece by piece:



Charles Xavier is easy to remember because I can picture him in his wheelchair with light glistening off his shiny, bald head. James Earl Jones has his large, opera-singer-like torso, and I can imagine hearing his deep, booming bass voice, plus he has three initials, which is an excellent way to mix up the pattern. Similarly, Madonna has only one initial, and she's wearing her signature cone bra. All of these people have iconic traits that make them impossible to confuse with anyone else, though if I focused too much on James Earl Jones saying, "You underestimate the power of the Dark Side," I might misremember him as Darth Vader, and if I thought too hard about Charles Xavier's face I might think of Patrick Stewart, the actor who plays him in the most recent X-Men movies.

The lesson here is that when you can choose anyone you want, choose carefully, and be consistent. Don't abbreviate your mom with the letter "M" and your dad with his real initials. You can abbreviate someone like Ronald McDonald as "RMcD" (instead of "RMD" or "RM") if you want, but if you decide to use that abbreviation convention make sure you also abbreviate Rosie O'Donnell as "RO'D."

LINK

Once you have your image for your password, in order to create a *truly* memorable password that's unique not only to you but also

among your other passwords, you need to have some kind of clue or reminder that will **LINK** you to the thing the password unlocks. As we discussed in the previous chapter, the Journey Method is a powerful technique because it allows us to anchor information in places we've already memorized. With PAO (refer to the previous section for a quick refresher, if necessary), we typically use the Journey Method, but for a password—especially when you may go weeks or months without typing it—it's critical that you have either a journey or some other type of **LINK** that's strongly associated with the website it pertains to. If you use one password for Google, another for your bank, another for Facebook, etc., you'll want to choose a **LINK** for your Google password that you specifically associate with Google, a **LINK** for your bank associated with your bank, and so on. With a little bit of variety, we can do for passwords what we did in the first section of this chapter for remembering a pin code for a specific bank card (see this page). There are three ways you can do this:

1. The Direct-Association Memory Journey

This is the simplest **LINK**, but it works only for certain types of sites. A direct-association memory journey is the brick-and-mortar equivalent of a site. For instance, when you visualize your PAO story for your bank password, you should start at the entrance to your local bank branch; for your work email, start at the door to your office. Pretty easy, right? Of course, you might not have a physical space associated with something like Google or Tumblr, so for those you may want to use . . .

2. The Indirect-Association Memory Journey

An indirect-association memory journey can be a strong storage method, but there's a big catch: The indirect association itself has to be memorable enough to remind you of the right journey. Google may make you think of California, which then makes you think of a beach, so you could use your quintessential mental image of a beach as your journey for that site. But will you make the connection Google > California > Beach every time you're prompted for your password? You can always use your imagination to add a little extra flair to the journey—so perhaps Google's rainbow-colored logo makes you think of a rainbow-colored beach.

3. The Logo Journey

This may be your best bet for those hard-to-define sites that don't

immediately make you think of any particular real-world place. It's pretty simple to come up with a logo journey: Just set your mental movie on top of, around, or inside the website's logo. This requires a bit more diligent visualization to really reinforce it, since a logo doesn't have the same sensory richness as a real-world location. But it does have a well-defined structure to it—and since your password visualizations need only three scenes each (three different people, each performing an action with or to an object), you can easily incorporate those scenes into any logo.

Take the Amazon logo, for instance: It's fairly simple, consisting of the word *amazon* with a yellow arrow pointing from the first *a* to the *z*. (Get it? It also looks like a smile. Oh, those clever graphic designers.) It may not seem like the ideal playground for a bizarre, memorable scene, but just think of all the possibilities: the first person summiting the top of the "a," as if it's a mountain peak, or sliding down off it; the second person buried in the notch between the two arcs of the "m," or using the yellow arrow as a skateboard ramp; the third person trapped inside the "o," or driving a train straight toward you through the tunnel-like "n." You could picture everything happening on the logo as is, or just take a key element (such as the arrow, as a skateboard ramp) and picture a more lifelike equivalent. The best part of the logo journey is that it's right there on your screen every time you have to log in.

GO!

You may have noticed that the actions I chose for my password had a lot to do with the Amazon logo journey I just described. I could have made Charles Xavier pop a wheelie in his wheelchair, or made James Earl Jones do backflips. But there are two very good reasons why I didn't. The first one is obvious, which is the actions' connections to the logo journey. Even if I hadn't entered my password in a year and the images had faded from my mind a bit, the shapes within the logo would serve as helpful reminders of what I imagined taking place on them. The second reason is all about interference: What if I used "pop a wheelie"—would that be a *p*? A *w*? Or *paw*? Would the backflips be *b* or just *f* for *flips*? Don't leave yourself any opportunities to get confused. Try to use the simplest verbs possible for actions, such as *jump* instead of *leap*, or *throw* instead of *fling*.

As I said before, you can choose any people and actions you want —though some are better than others, and there are some you want to avoid altogether. When it comes to choosing objects, your range is

much more limited—this is because in order to keep a consistent system, and to integrate numbers and symbols that make passwords harder to guess, you need to choose objects whose shapes roughly correspond to the shapes of symbols on your keyboard (for example, ! could be a baseball bat, ^ could be a hat, and ~ could be a worm). Fortunately, there's plenty to choose from. Along with the ten numerals, you have twenty-two symbols and the spacebar, though some sites won't allow certain elements, such as spaces and parentheses. Since some of these look similar to one another (such as the hyphen and the underscore), you shouldn't come up with objects first and then arbitrarily assign characters to them. You should either avoid those similar characters altogether or come up with a system in which you dedicate one or two specific objects to each character. If you make up a system, write it down for reference (or you can use my system in the appendix on this page) and save it somewhere handy such as your wallet or in a note on your phone (don't worry, it won't make your passwords more hackable unless you're writing down your specific journeys too).

PRO TIP

If you want an even more fail-safe way to keep track of all your different passwords, but you don't want to take the risk of writing them down and then losing that paper, you can create a dedicated journey just for them. LINK them with the methods above, but then also create a memory journey for those same images, so they have a secondary place to live.

A LITTLE EXTRA SAUCE . . .

In case you're wondering why your passwords should have three PAO sequences or three people doing something, the short answer is: because math. Password cracking depends, to some extent, on processing power. But someone using a regular desktop computer could crack a six-character password in about a minute, a seven-character password in about an hour, an eight-character password in about five days, and a nine-character password in about five years (which is to say never, since I don't believe there's a computer out there that can run for five years straight without crapping out somewhere along the way). Even if someone knew you were using the PAO System and tried only capital letters for the names, only lowercase letters for the actions, and only numbers and symbols for

the objects, he would have to go through roughly the same number of combinations as a totally randomized nine-character password (and that's if you used two initials for every person in every sequence; the three-initial and one-initial people make this way harder). You could make things extra super-duper secure with a fourth PAO sequence, but it's probably not necessary (at least not until computers, and thus cracking attempts, get much faster) and it may exceed the character maximum on some sites.

So it's up to you now: You can stick with "123456," or you can take a couple minutes to come up with a journey, three people, three actions, and three objects. You may want to take a little extra time to practice logging in and logging out a few times, to reinforce your journey in your mind, and if you want a backup you can always write your journeys down on paper and store that paper somewhere safe. You can also keep your passwords fresh in your mind by making a point of trying to recall them even when you don't need to enter them —for instance, when you visit sites like Gmail and Facebook that keep you logged in for extended periods.

No matter the state of your passwords at this moment, now you have the mental technology to rebuild them: longer, more random, unique, and—most important—unforgettable.

TEN THOUSAND DIGITS OF PIZZA PI?!?

HOW TO REMEMBER NUMBERS AS LARGE AS YOU WANT!

You probably will never find yourself face-to-face with a five hundred-digit, ten thousand-digit, or even one hundred thousand-digit number that you have to memorize, but you never know! At this point, with everything you have learned in this chapter, you actually have the skills to memorize *any* size number you want (yes, even a one hundred thousand-digit number, believe it or not!).

Memorizing a large number is something we memory athletes constantly find ourselves doing. Whether it's for Speed Numbers, where we have to memorize as many digits as possible in five minutes (my personal best is 339 digits), or Marathon Numbers, where we have to do the same in one hour (my personal best is 1,555 digits), we approach the numbers the same way. To memorize a massive number, you'll need to make sure you have enough locations on your journey (or enough journeys) to store all the digits you plan to memorize (that's really the hardest part, to be honest). You'll also need time. The larger the number, the more review you'll need once you've done all the storing in your memory journey.

Back in 2016, for World Alzheimer's Day, I made an attempt to break a world record in memorization of the number pi (3.1415926 . . .).⌗ I had ten thousand digits of pi memorized, and the record was for me to be able to respond to any five-digit sequence chosen out of the ten thousand digits of pi with the following five digits and previous five digits . . . fifty times, with no mistakes, in under 16 minutes and 32 seconds (the current record). To get ten thousand digits in my head didn't take very long. I broke it up into groups of one thousand and memorized one group a day for ten days. Getting the numbers in my head was easy, but what took the most time was reviewing everything.

I'd close my eyes and fly through my massive array of journeys. Of course, by the time I had memorized the last set of one thousand, what I reviewed was a lot less fresh than the newer stuff. So with a good amount of daily review, I was able to keep on top of all ten thousand of those digits. My point being: When the number of digits gets that large, you *need* the time to review them all . . . a lot, especially when you're first learning them.

In addition to time and journey storage space, increasing your two-digit system to a three-digit system is a useful tweak to help you chunk more digits together (more chunking equals fewer images). If you're using a PAO System, it's quite a leap to go from one hundred people/actions/objects to one thousand, but the payoff is that you can cut your total number of mental images (each PAO chunk at each anchor point) by a third, enabling you to go faster and store more numbers with shorter journeys.

Some people increase only their PAO *people* up to one thousand and leave the actions and objects at two digits (which gives you a nice chunk of seven digits per image—3-2-2—instead of six digits per image—2-2-2). Some (like me) increase their PAO *people* and *objects* up to one thousand, and the actions up to 100. (I chose these conventions because I didn't want to come up with one thousand distinct actions.)

My approach for jumping from one hundred people to 1,000 is to use a category system. I take the original two-digit number and give it a unique category so that I can assign related images to each of the nine other numbers that include the original two digits in the three-digit number. For instance, since 15 (or 015) is Albert Einstein, every three-digit number that ends in 15 fits into the category of Albert Einstein, which I've decided is *famous scientists*. With the first digit providing a letter-based clue using either the PAO System or the Major System phonetic code, when I see the number 815, I know it's a

famous scientist whose name starts with either H (PAO System) or F or V (Major System)—both options for representing the number 8. My 815 happens to be Richard Feynman (8 = F, Feynman starts with F), whom I can picture easily—but since I couldn't come up with nine scientists, I expanded the category to include a few characters from one of my favorite science-fiction movies, *Contact*.

In other cases, I had difficulty thinking of a category for that initial two-digit number. For 83 (or 083), there is Bear Grylls, the adventurer. I didn't think I knew enough memorable adventurers to fill a whole category, so I made a bit of a stretch. All of the 83s became fruits/vegetables (because to survive in the wilderness, you have to find a way to eat!). So 183, for example, is an apple (1 = A, my cue for apple). You don't have to split things up into categories, but you'll learn a three-digit system much faster that way. It took me almost six months of daily practice to learn mine.

Others will use a three-digit Major System; that way you need only one thousand images, which can be a mix of people and objects (which all depends on your word construction choice). This might be a more manageable option if you're pressed for time, and there are plenty of Major System word generators on the web to help you come up with all the words. Once you have those one thousand images, common practice is to put two images (six digits, 3-3) in one location or even three images (nine digits, 3-3-3) per location. I'm not a fan of this method because it's not as rigid as using a Person-Action-Object, but some people prefer the freedom. To each his own. At the high end, both PAO and Major Systems have been proven in elite memory competitions to be similarly effective.

PRO TIP

You can also use this skill to win bets or free beers at restaurants and bars. I once bet a restaurant manager that I could memorize the credit card numbers of everyone at our table (it was a party of nine people). He didn't believe I could and said that if I did, he would pay our meal tab (which was well over $650). I did it using this very system and was the hero of the day among my friends. Have fun!

LET'S TRY ONE TOGETHER

I'll leave the large number-memorizing projects up to you, but I figure that there's one particular number that might be fun to learn as an example: pi to thirty-two digits!

EXAMPLE—3.14159265358979323846264338327950

As we've seen throughout this chapter, there are a number of ways to go about memorizing a large number like this. My system of choice would be PAO. The only down side to PAO is that it needs a bit of prep work to set up. So, for the sake of ease in this example, let's use a two-digit Major System so everyone can follow along. If you have any questions as to where I'm getting my images from, refer to the appendix (this page) to see my complete two-digit Major System.

Okay, so let's start by breaking up the digits in twos. Then, to make use of some chunking, let's group two pairs at a time. That way, we only need eight total images and anchor points to store them:

14-15 // 92-65 // 35-89 // 79-32 // 38-46 // 26-43 // 38-32 // 79-50

Next, I want you to look around. In the very room or space you're in, create a journey of eight anchor points. Starting from where you're standing/sitting, loop around the space in a clockwise fashion, ending back at yourself. Congratulations, you've just created your first journey on your own! Now, let's store those thirty-two digits there!

Using my Major System (remember, you can look them up for reference in the appendix, this page), our images are as follows:

Tire-Doll	*14-15*
Pen-Jello	*92-65*
Bible-Bib	*35-89*
Cape-Moon	*79-32*
Mouse-Leash	*38-46*
Noah-Ram	*26-43*
Mouse-Moon	*38-32*
Cape-Lace	*79-50*

Place that first image of a tire rolling over and flattening a doll at the first location of your journey. Then continue to the second location and imagine a pen signing a signature into some green, wobbly jello. And so on, I'll let you take it from here.[§§]

Isn't that amazing? Eight silly images and you can remember a massive thirty-two-digit number forward and backward.

* Shakuntala Devi is a well-known mental calculator from India. She could do impressive feats of memory such as multiplying or taking the roots of large numbers. She once successfully multiplied two thirteen-digit numbers in her head—7,686,369,774,870 × 2,465,099,745,779. She answered correctly in twenty-eight seconds: 18,947,668,177,995,426,462,773,730.

† Quick history lesson for the youngsters reading this: In the twentieth century, believe it or not, we used things called phone books; in the early twenty-first century, we used computers that were too big to fit in our pockets and too dumb to make phone calls.

‡ This is from one of the most referenced psychology papers of all time: George A. Miller, "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information," Psychological Review 63 (1956), on Classics in the History of Psychology, website by Christopher D. Green, http://psychclassics.yorku.ca/Miller.

§ The Linking Method works better here if you just need to hold the number until you dial it. The Journey Method works better if you need to remember that number for a longer period of time.

¶ The earliest version of the Major System was developed by French mathematician Pierre Hérigone in the early 1600s. Some believe "major" comes from Major Beniowski, who published a version of the system in the late 1800s. The current version of the system (and the one you'll see here) was first published by Aimé Paris in 1825.

** Don't worry if you can't think of very many (or any!) immediate associations in this stage—we'll figure out all the remaining numbers in the next stage.

†† You don't have to store this number in ajourney. In fact, you could simply associate the pair of PAO images to something about the passport itself. For example, maybe the reason the magician is crying is because he's traveling away from home and is homesick. Then Larry David throws him a boomerang in an attempt to cheer him up. Doing it this way is fine, but storing more complex images like these, in my opinion, are recalled easier and more accurately with a journey.

‡‡ I had three attempts, and on each one I made a mistake somewhere along the way. It's a tough record to beat!

§§ If you don't feel like learning my Major System images but still want to know a good chunk of pi digits quickly, memorize this sentence: "How I need a drink, alcoholic of course, after the heavy lectures involving quantum mechanics." The number of letters in each word correspond to the digit in the sequence (How = 3, I = 1, need = 4, etc.). Knowing that sentence will give you a respectable fifteen digits of pi. Cool!

CHAPTER SIX

Tips for Memorizing Some of the Other Things Your Bumfuzzled Brain Has to Deal With

A man's real possession is his memory. In nothing else is he rich, in nothing else is he poor.

—ALEXANDER SMITH*

Up until now, we've been learning the basics bit by bit. But I haven't covered everything . . . yet. Now that we have our complete set of tools—our strategies for **SEE**ing, our strategies for **LINK**ing, and our strategies for **GO!**ing—let's put them together to learn how to memorize all the other things that might be of importance to you.

In this chapter, we'll learn how to memorize speeches and poems, foreign languages, historic dates, geography, and what I consider the apex of memory skills: memorizing a deck of playing cards.

So gather all of your mnemonic tools and let's begin.

SECTION 1 — SPEECHES AND TEXT

Are you feeling ready to take your skills to the Big Stage? Okay, maybe you're not quite ready for world-class memory competition, but you're just about ready for your own kind of Big Stage, which may literally be exactly that: a stage.

In our age of PowerPoint, teleprompters, cue cards, flashcards, and even good ol' ink and paper, we easily forget that memory techniques were once the only way for public speakers to deliver prepared speeches or recite orally transmitted stories. When the ancient Greeks, around 600 BCE, began to formalize and teach rhetoric, the art of discourse and persuasion, they enshrined *memoria* as one of the five canons—or fundamental principles—of rhetoric. The others are *inventio* (discovery of ideas), *dispositio* (organization of ideas), *elocutio* (style), and *pronuntiatio* (delivery). Needless to say, speakers today still put a great deal of thought and effort into content, structure,

tone, and stage presence. But we take memory for granted as something that comes either from rehearsing and knowing the material incredibly well or being clever enough to use the "notes" function in PowerPoint as a sort of cheat-sheet while presenting.

You don't have to be a rhapsode,† though, to use your memory to give better speeches. You've probably even done it before, back in grade school when your teacher made you memorize a poem, or when you were in the school play, or when you had to give a big sales pitch. You've used your memory like this before; you've probably just used it the wrong way.

HE SAID/SHE SAID?

HOW TO REMEMBER YOUR FAVORITE QUOTES AND SAYINGS

There is one text-memorizing technique that I have to share before we go any further, and it will completely blow you away. I call it the First Letter Method. The simplicity of this technique is just astonishing and it serves as a fantastic introduction to memorizing short lines of text, such as a one-liner quote or a catchy toast. It won't make things stick forever unless you eventually apply one of our learned **LINK** steps, but it's a great preliminary step to getting a complex sequence of words into your memory insanely fast. And once it's in your memory, you can then apply **SEE–LINK–GO!** at your own pace.

Let's get right to it using one of my favorite one-line toasts (this is a great one to impress your friends next time you clink your pints together at the pub).

LET'S TRY A FEW TOGETHER

EXAMPLE 1—"May we be in heaven half an hour before the devil knows we're dead."

Alright, first read the sentence in your mind once or twice. Then read it once or twice out loud. Here's where it gets wacky . . . write down the first letters of each word (including capital letters, lowercase letters, and any punctuation):

M w b i h h a h b t d k w d.

Once you've written it down, read from this minimalized version of the sentence, filling in the complete words as you go. Nine times out of ten, you'll be able to read the sentence perfectly. It's okay to

glance back at the original in case you aren't sure of a word. Read the sentence this way once or twice.

Now close your eyes and try to recite it from memory. It's there, isn't it? Isn't that absolutely befuddling and amazing all at the same time? How did our memory just do that? What always astonishes me the most is how our brain can fill in all the words just by seeing the first letter of each word. It just goes to show that if we're paying attention, we are nearly *always* memorizing things, even if we don't know it; it's just a matter of whether we can retrieve it or not. The second most amazing thing about this is how after reading the text with just the first letters, your brain can remember the whole thing *snap*, just like that. I'm sure it relates to the fact that you physically took the time to write down the first letters so that when you go to say the line from memory, you have that visual cue of you writing it down fresh in your visual memory.

EXAMPLE 2—"Here's to those who've seen us at our best and seen us at our worst and can't tell the difference."

Read it over a couple of times to yourself, then once out loud. Then break it down:

H t t w s u a o b a s u a o w a c t t d.

Read it a few more times. Now put the book down and say it completely from memory. MAGIC.

JUST IMAGINE EVERYONE IN THE AUDIENCE IS NAKED

HOW TO REMEMBER YOUR SPEECHES AND PRESENTATIONS

If you've ever had to memorize a speech—or even the key points of a speech—by rote repetition, you know that it can be done that way . . . eventually. Sometimes, though, that process can take hours, even days. At a certain point, you get it down pat. When the time comes to deliver it, you've got a pretty good shot at nailing it—unless you get nervous, or you suddenly feel tired, or you just get distracted for a moment and lose your place, then you lose the whole thing, and you wonder if you're losing your mind (or your job).

I feel your pain. I've had memory mistakes too, and they burn—especially in front of an audience. At this point, you probably have a noticeably better memory, which means fewer mistakes overall. But

on the Big Stage you have to consider whether you need your memory to be 100 percent perfect—as in knowing a speech, a script, or a poem word for word—or whether your memory has to be good enough only to recite the key ideas in their proper order (the essential *inventio* and *dispositio*, if you will, so you can save your energy for some rousing *elocutio* and *pronuntiatio*).

WHAT'S THE BIG IDEA?

Let's leave the word-for-word memorization aside for a bit and start with "good enough"—in other words, just memorizing the key topics. If you know your material well, and you already have the ideas for your talk developed and structured, you don't need to use your conscious memory to elaborate on each idea—you can probably do that off the cuff. Really, all you need is a list of the ideas themselves, sorted in their proper order.‡ Hmmm, this sounds familiar, doesn't it?

EXAMPLE—Let's say you're getting ready to give a big talk, titled "Things the Honey Badger Doesn't Care About." You have four main points you'd like to address:

1. ***The honey badger doesn't care about a snake up in a tree.***
2. ***It doesn't care about a houseful of bees.***
3. ***It also doesn't care about getting stung by those bees.***
4. ***Or about a snake saying, "Get away from me!"***§

You don't want to embarrass yourself in front of a roomful of people; you want to keep your talking points straight, and you want to go through them one by one, in order. What's the best way to keep track of all those snakes and bees? Put them in a journey!

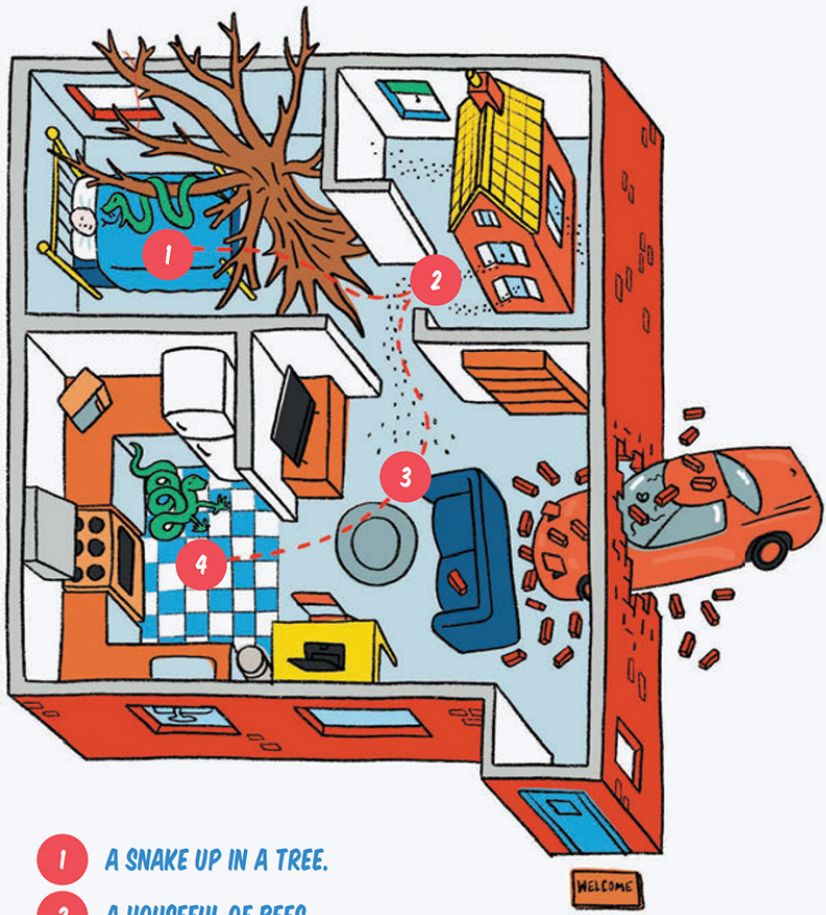
Close your eyes (well, read this first and then close them) and imagine yourself lying in your bed, looking around your bedroom. At the foot of your bed there's a giant, gnarled tree with branches coming out in every direction. One of those branches is sticking out above your head, and dangling from it is a bright-green king cobra with red eyes like lasers, razor-sharp fangs, and a forked tongue. It's staring right at you, but you don't care. You get out of bed and leave the room.

You head over to the bathroom, take a look inside, and notice the sink, toilet, shower, and everything else are gone—replaced by a red brick house with white shutters. The windows are open, and bees are streaming out of

there and buzzing all around. They start to come after you, so you dash to the living room.

You make it to the living room, but you can't outrun the bees. They're stinging you everywhere. There might even be a bee driving a Chevy Corvette Stingray through the wall, if you can imagine that. But like the honey badger, you don't care.

THE HONEY BADGER SPEECH INSIDE A MEMORY PALACE



1. A SNAKE UP IN A TREE.
2. A HOUSEFUL OF BEES.
3. GETTING STUNG BY THOSE BEES.
4. A SNAKE SAYING, "GET AWAY FROM ME!"

You stroll over to the kitchen, and there's that snake again. This time, though, the snake is cowering in fear, curled up in the corner. It's stretching out its arms (this is some crazy snake!) as if to push you away, and it's screaming, "Get away from me!"

Now, how could you ever forget those talking points?

Actually, that's not a rhetorical question. You could forget if you don't **SEE–LINK–GO!**: Pay attention, visualize, find a place to store it, add that magic **GO!** glue, and trust in your memory. You could also lose your place as you're up there explaining at great length exactly how and why the honey badger came to be so unfazed by a house full of bees. By the time you're ready for your next point, you may have to jog your memory by retracing your journey from the beginning, starting at your bed, moving into the bathroom, and seeing the red brick house as your bookmark, then going into the living room to get stung by bees and be reminded that that's the next item on your to-speak list. It's not the same as forgetting it entirely, but that little pause might cost you some *pronuntiatio* points.

In terms of which journey to use, if time and space permit, you can use the actual venue of the talk. Using the venue is a bit less taxing on your brain—you don't have to visualize the space, since it's right in front of you; all you have to visualize are the images corresponding to your talk, overlaid on the furniture and fixtures around you like a cartoon layer, à la *Who Framed Roger Rabbit*.

TO BE OR NOT TO BE . . . WHAT WAS THE QUESTION?

HOW TO REMEMBER POEMS

Sometimes memorizing the key talking points isn't good enough—you have to get each word exactly right. For instance, in memory competitions we have to memorize poems as precisely as possible—punctuation, capitalization, and all. If you're an actor, you have to do pretty much the same thing (with even more contextual information such as blocking) every time you get a new script. To do this, you need a pretty long journey, even for fairly short texts, because even if you chunk a few consecutive words together you'll still need at least one or two anchor points per line of text. The general principle is the same as before, but with word-for-word memorization you'll need a code similar to what we discussed in chapter 5 with regard to

passwords (see this page). Instead of finding something concrete and visual for each of the characters on your keyboard, you need something concrete and visual for all the conjunctions (*and, or*, etc.), prepositions (*to, in, at*, etc.), pronouns (*he, she*, etc.), and articles (*a, the*, etc.). You'll also need to represent punctuation and capitalization in your code (if your recall requires you to write it down rather than say it aloud). You can do this on the fly, though, since consistency doesn't matter as long as you can keep everything straight. Sometimes the easiest way to encode those short, abstract words is with a rhyme word that would otherwise be out of place with the rest of the text—for instance, replacing *and* with an image of sand, or a hand, or a band (you can see a list of some of my go-to filler word images in the appendix on this page).

To give you an example, I'll break down the first stanza of Shel Silverstein's poem "One Inch Tall." As always, you can use any journey you like, but for the sake of illustrating this with a slightly more iconic route (and to show you another idea for what you can use as a journey), we're going to take a trip across the United States: starting in Miami and moving up the East Coast to Washington, D.C., then to Philadelphia, New York City, and Boston; heading west toward Chicago, Denver, and San Francisco; and finally, down to L.A. Each place has its own memorable scenery: Miami Beach, the White House, the Liberty Bell, the Empire State Building, Boston Harbor, the Sears Tower, the Rocky Mountains, Lombard Street, and the Hollywood sign. Here we go:

EXAMPLE—
IF YOU WERE ONLY ONE INCH TALL, YOU'D RIDE A WORM TO SCHOOL.
THE TEARDROP OF A CRYING ANT WOULD BE YOUR SWIMMING POOL.
A CRUMB OF CAKE WOULD BE A FEAST
AND LAST YOU SEVEN DAYS AT LEAST,
A FLEA WOULD BE A FRIGHTENING BEAST
IF YOU WERE ONE INCH TALL.

Before you start trying to store the stanza in the journey, dive into it and imagine not just witnessing it but *living* it. As you read the words, picture them playing out in your mind and as you see them, try to feel the emotion of each line: the freedom and pride of riding your very own worm to school, the schadenfreude as the ant cries and you get to

swim around in its tears, the satisfaction of eating that crumb, and the fear of that intimidating flea. After you've read it once, read it again without storing it. On the second pass, pay more attention to the structure of the lines, the meter, and the rhyming scheme (if you want, on this second pass try the First Letter Method from earlier in this section [this page] so you can get an even better handle on the stanza). Then, on the third pass, start coming up with images for the exact words as you store them along your journey.

PRO TIP

There is no right or wrong way to split up the lines. It's my personal preference to split them in half, but it's not always the case. If a line is short, I'll just take the entire line as one image. If a line is long, I might even split it in three or four pieces. It all depends. The important thing here is to be flexible and do what feels reasonable to you.

In this particular poem, the lines are a bit long, so we're going to split them in half. Here's how I'd break them down:

"IF YOU WERE ONLY ONE INCH TALL,"

We're standing in Miami on the beach (our first anchor point) and we need to picture this phrase happening there. This is an easy one, since it's so concrete: Picture yourself on the beach as if you were only one inch tall! That will give you only the gist of the phrase, so you might add an image for "if," to get deeper into the specific wording. When I see the word "if," I imagine the Château d'If from the movie version of *The Count of Monte Cristo*. So plop goes the Château d'If on Miami Beach, and you're only one inch tall in comparison. To remember the word "only," put emphasis on the fact that you are the *only* person on the beach. One thing to take note of is the point of view of the poem: It's in the second person. Everything is about *you*. It's something to keep in mind throughout the whole poem, not just in this one line. What about the comma? This is where you need to access your visual code for symbols. For instance, I associate a comma with the action of falling, a period with some type of bloody violence, and a semicolon with mopping the floor. So to remember the comma at the end of this phrase, I would picture my tiny one-inch self falling over next to the Château d'If.

. . . "YOU'D RIDE A WORM TO SCHOOL."

Now you're in D.C., in front of the White House, and you're riding a worm up to the White House, which looks like a fancy school, with yellow school buses pulling up and students milling around carrying backpacks. What about the period at the end? According to my code, I need some bloody violence in there, so maybe a sniper takes me out as I approach the front door of the White House.

"THE TEARDROP OF A CRYING ANT"

This one is also easy to picture, and memorable too. Imagine there's a giant ant atop the Liberty Bell, and it's crying hysterically as a massive teardrop runs down the bell. Pretty simple, but if you're worried about confusing *crying* with a stronger verb like *sobbing*, add something small and similar-sounding, like a crayon, to remind you.

"WOULD BE YOUR SWIMMING POOL."

We're in New York City now, so picture a wooden bee in a swimming pool on the top of the Empire State Building. Why a wooden bee? To help you remember *would be*. It's not about representing each word perfectly but about representing all the words in some fashion (except *your*, which comes up over and over enough to be inferred wherever it appears). Plus, it's weird and random—which means it's memorable.

"A CRUMB OF CAKE WOULD BE A FEAST"

Sometimes you can fit a whole line into one image. This particular line happens to be short and simple, so you can imagine Boston Harbor (or any colonial-looking harbor) with a giant, floating cake in the water, and a single crumb flakes off and is promptly feasted upon by that same wooden bee. If the word *feast* trips you up as something that's hard to picture, maybe instead, imagine the bee holding a fist (*fist* is close enough to *feast*) in the air like a rock star as it eats the crumb.

"AND LAST YOU SEVEN DAYS AT LEAST,"

Now at the Sears Tower, we have an abstract—and therefore difficult—line to imagine word for word. Let's split it in half.

"AND LAST YOU"

For prepositions like *and* and *or* you'll want to use contrasting preset images. For me, *and* is a circle and *or* is a square. So I might picture myself at the Sears Tower standing on a circular platform; I'm last in line to get into the building, and lit up on the side of the building is

the logo from my alma mater, the University of Miami, aka The U (pronounced like *you*).

"SEVEN DAYS AT LEAST,"

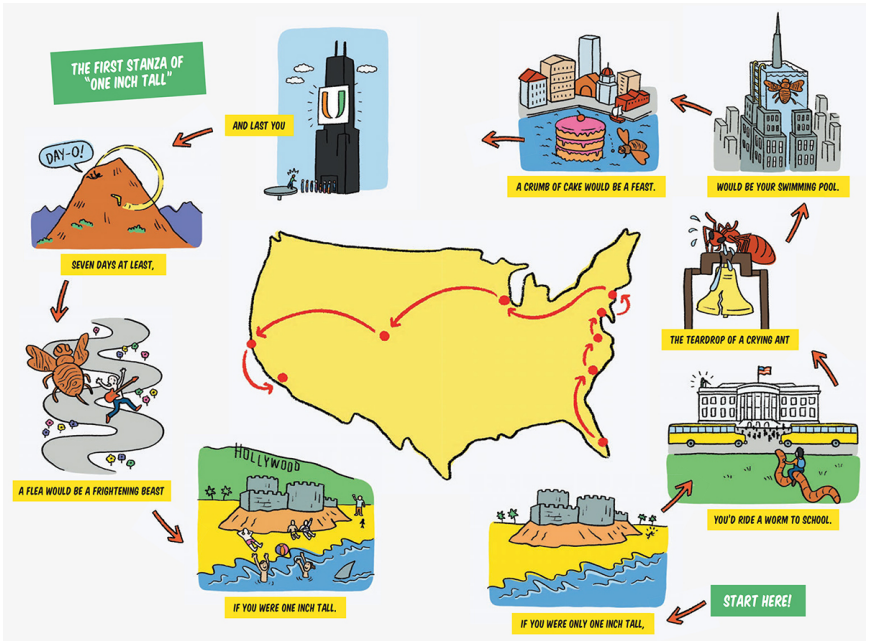
On a mountain in Denver, imagine that you're throwing a boomerang (the number seven) while singing "Day-O," then falling down the mountain (because the comma is marked by the falling motion).

"A FLEA WOULD BE A FRIGHTENING BEAST"

On Lombard Street, Flea (the bassist from the Red Hot Chili Peppers) is being stung by that wooden bee, and he's screaming over and over, "A frightening beast!!!" as he runs down the famous winding road.

"IF YOU WERE ONE INCH TALL."

Lastly, you're at the Hollywood sign in L.A. Since this line is the same as the first, minus the word *only*, you're going to picture the exact same thing as you stand under the sign—except you're *not* the only person there. Don't forget something gory for the period!


THE FIRST STANZA OF "ONE INCH TALL"
AND LAST YOU
DAY-O!
SEVEN DAYS AT LEAST,
A FLEA WOULD BE A FRIGHTENING BEAST
HOLLYWOOD
IF YOU WERE ONE INCH TALL,
A CRUMB OF CAKE WOULD BE A FEAST.
WOULD BE YOUR SWIMMING POOL.
THE TEARDROP OF A CRYING ANT
YOU'D RIDE A WORM TO SCHOOL.
START HERE!
IF YOU WERE ONLY ONE INCH TALL,

That's everything! Now try, without looking back, to see if you remember all the images (they don't have to be exact, just roughly what was happening at each anchor point). Some may have been easier to remember word-forword; others may be off a bit, but at least you can recall the images. Don't worry, you can go through it again if you must. The crucial part for me, after I've done the encoding of words to images, is to write down what I remember the first time I retrace my journey. I find that writing it down at this point adds another dimension of visualization that helps with recall, since there are so many tiny details. As I write it down from memory, I'll keep the poem next to me if I stumble anywhere and need a crutch to remind me, but I try not to look at it at all. Once I've written it down once or twice, the poem is cemented into my mind.

Everyone is different, so experiment a bit to see what works best for you: memorizing smaller or larger pieces, memorizing key words here and there, mixing it with a bit of rote repetition, whatever!

However, note that once you've memorized a set speech or poem, making it verbally fluid isn't always a given. Remember, these techniques get information into your memory fast but don't necessarily make you quick on the draw, so to speak . . . at least not at first. Once you have it in your brain, though, you can then review it as often as you want, anywhere you are by just accessing your journey.¶ If you want your *pronuntiatio* to be seamless, you'll have to practice not just *memoria* but the whole quintet of rhetoric all at once. This is something that just takes repetition. As you continue to perform your speech or poem aloud, it will eventually become a single fluid thought, like a song you've sung a thousand times—and in the event that you stumble, you'll always have the basic rubric in your mind to get you back on track without too much hesitation.

SECTION 2 — LANGUAGE

Words, words, words; they're in everything that we say, write, and hear. There is always the need to learn new words, new concepts, new languages. In the previous section we used **SEE–LINK–GO!** to make sure we memorize every single word and punctuation mark of a text perfectly, and we can follow the same process to help us increase our vocabulary in our native tongue or even in a foreign one.

WHERE'S THE DICTIONARY?

HOW TO REMEMBER VOCABULARY WORDS AND THEIR MEANINGS

Let's start with learning new words in your native language. How does one go about memorizing new words and definitions? Well, it's a lot like names and faces. We see a word and we see a definition (like a face and a name), so we come up with an image for both and then we **LINK** them together. You remember that process, right? With words and definitions, it's a bit easier because we don't have to search for a distinguishing feature on a face (which can sometimes be a bit tricky). Imagine that learning a new vocab word is like an equation. The left-hand side is the word in question, while the right-hand side of the equation is the short (or long) definition. Coming up with an image for the left-hand side is something we know very well. We learned it early on in this book (this is just the **SEE** step). The right-hand side is where our newly honed text-memorizing skills come in handy. You won't need to memorize word for word, but maybe a few words to get a good sense of what the definition means. Sounds like we're aiming for that "good enough" target, right? The idea is that you take a few key words in the definition and come up with an image for that chunk. Once you have that chunk, you link it with the image you had for the left side. Then, the next time you hear the word or you hear some type of definition, you can remember the opposite side of the equation based on that anchor point being served to you. It's actually better reinforced than the names and faces technique because you have doubly linked anchors. Give me the left side and I can recall the right. Give me the right and I can recall the left.

LET'S TRY A FEW TOGETHER

EXAMPLE 1—*Garderobe* = a medieval toilet; a privy. **

Garderobe reminds me of a garter (you know, those sexy things you might find on your wife-to-be's leg?) and a robe. So I would imagine a voluptuously sexy woman in a robe with only a garter on underneath. Now for the right-hand side of the equation: a medieval toilet. Well, that's memorable in itself, isn't it? I'm going to imagine a filthy old toilet from medieval times. Now we **LINK** and **GO!** This one is so simple to make memorable: Imagine that gorgeous voluptuous woman in a garter and robe sitting herself on that disgusting toilet and making it a real mess. I'll let you add as much color to that one as you'd like!

EXAMPLE 2—*Vainglorious* = having or showing too much

pride in your abilities or achievements.

I love this word because it sounds exactly like what it is. But let's say you couldn't make an educated guess about what it means. You might picture someone with a big, blood-pumping vein on his or her forehead. It's so big that it's absolutely glorious! On the right-hand side, our definition is a tad long, but I'm going to latch onto "showing too much pride." To me, the word *pride* is too abstract, so I'll imagine a more tangible sense of that word: a pride of lions. Here's my **GO!** image: This person with the massive, throbbing vein that's glorious is showing it too much to this pride of lions. Those lions are absolutely bloodthirsty and are about to attack that juicy (gloriously juicy) vein at a moment's notice!

EXAMPLE 3—*Fratricide* = the crime of murdering your own brother or sister.

This word reminds me of a college frat house serving up a lot of under-age kids with some alcoholic cide-r. The right-hand side makes me picture my brother or sister being murdered (not pleasant, unfortunately). When we **GO!**, we might get an image of this cider-serving frat house welcoming in all brothers and sisters. Sadly, all the cider is poisoned, and the frat house is essentially a place where all brothers and sisters are going to get murdered. This is a very dark image, but hey, sometimes you need something like that to make it stick out.

This technique makes learning new vocabulary a breeze. For those in need of memorizing a book full of SAT or GRE words, you can get it done in one or two sittings. The key thing that makes it so quick and easy is that you don't need to memorize the definitions word for word—you just need the bare minimum to recognize them (if you do want to memorize the definition word for word, you'll have to think back on our poem-memorizing approach from a few pages ago [this page]—totally doable, but a little more challenging).

QU'EST-CE QUE C'EST?

HOW TO REMEMBER FOREIGN WORDS AND THEIR MEANINGS

What about foreign-language words? In my opinion, they're easier to memorize because the left-hand side (the foreign word) is almost meaningless to you upon first glance. This allows you to have full freedom and flexibility to go crazy with your imagination. Since you have no fixed notion of what that word might mean or look like, you can make it as far-fetched as you want (in fact, you *have* to do this for exactly that reason). Since French is my native language (my parents are French-Belgian, in case you didn't know), why not let me teach you a few of the language's most beautiful words?

LET'S TRY A FEW TOGETHER

EXAMPLE 1—*Chou* = cabbage

Chou (pronounced like "shoe") is a funny little word I grew up with because my parents would use it with each other as a term of

endearment. Calling each other *cabbage* isn't particularly endearing, I agree, but in French it just sounds so sweet! Because the word *sounds* like "shoe" and *means* "cabbage," if we **LINK** the two sides of the equation, we get a memorable image of a shoe stomping the hell out of a cabbage. *STOMP STOMP STOMP!* Not so sweet after all, is it? Memorable though![††]

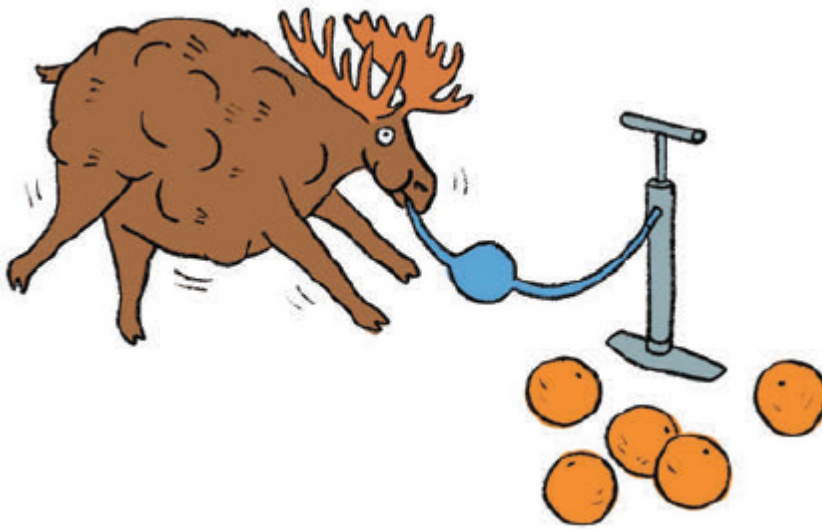
EXAMPLE 2—*Baleine* = whale

Something about this word just feels so elegant and light and fluffy to me. It's a beautiful word. Which makes it even more striking when you realize it means *whale*, something so massive and funny looking. *Baleine* (pronounced "bah-lenn") kinda-sorta sounds like "balloon." (with a few liberties, sure, but remember we don't necessarily need a *perfect*-sounding word. It just needs to be close enough to get us the image.). **LINK**ing it with the definition of a whale, we can imagine a balloon being filled with air inside of a whale, causing it to grow and grow into the massive mammal it is! Maybe it even fills up with so much air that it floats up into the sky just like a balloon. Weird, but memorable.

EXAMPLE 3—*Tournesol* = sunflower

Tournesol translates literally as "turned toward the sun." If you've ever watched a field of sunflowers, they actually turn their faces with the movement of the sun. It's amazing to see. *Tournesol* (pronounced "tour-nuh-suhl") reminds me of a *tournament of soul*. I would imagine a sort of *Soul Train* TV show where there is a Tournament of Soul happening. What does the winner of this epic dance-off get? A sunflower, of course!

EXAMPLE 4—*Pamplemousse* = grapefruit



This is a funny one. Pronounced "pump-le-moose," it sounds like *pumping a moose*, so I would picture me pumping up a moose (using some kind of large tire pump) with grapefruits. Actual grapefruits are being pumped into the body of the moose. What?! Yup. It's as simple as that.

EXAMPLE 5—*Vachement* = very; truly

I absolutely love this word. It's so silly but so expressive at the same time. And if you listen carefully to French speakers, you'll hear it sprinkled throughout casual conversations everywhere you go. It translates literally as "cowly" or "like a cow" but is used as an adjective to give something more emphasis (e.g., *vachement bien* means "amazingly good"). *Vachement* (pronounced "vash-mon") sounds like *rash-man* (said with a Jamaican accent: *rash-mon*). I know

rash and *vash* don't start with the same letter, but that's okay, it's close enough. This should be a quick association of a *rash-mon*, some Jamaican guy who is covered in a rash. **LINK**ing it to the other side of the equation, we can just emphasize his *VERY* intense rash; it *TRULY* is the worst rash you've ever seen. He is *vachement* a *rash-mon*.

With this skill, you could power through some serious quantities of foreign vocabulary in a very short amount of time. Will you become fluent this way? Definitely not. Learning a language takes many hours of *using* the language, not just memorizing.

That said, to master a language you do need to know a good chunk of words—and if you can memorize the first few thousand most-common words in your target language, you'll be well ahead of the game. In French, learning just the first two thousand most common words will allow you to read and understand about 80 percent of books!

While the previous tips for memorizing meanings will take you far, you'll need to spice up your approach and get a little more creative when adding more complex linguistic details. For example, if you need to remember whether a word is feminine or masculine (or neuter, in some languages), you can simply place your images in a specific location. It doesn't have to be on a specific path, just in a general area. For example, maybe all your female-gendered foods (*fraise*/strawberry and *framboise*/raspberry) get placed inside the barn at a farm you knew when you were growing up. Maybe all the male-gendered foods (*chou*/cabbage and *pamplemousse*/grapefruit) get placed *outside* the barn. Or maybe you use two houses to enclose all of your learned French words—one house for masculine words, the other for feminine words. So you could place all the words for kitchen utensils in the kitchens of both homes, only one would be for masculine words, the other for feminine.

SECTION 3 — A MISHMASH OF THINGS

I would need whole volumes of books to cover every single memory strategy known to man, but unfortunately we have to end things at some point or another. We've already covered a lot of ground, but before we move on to the last chapter, where I'll be giving you some general brain-health tips, let me rapid-fire some other examples of how you can utilize everything you've learned so far to memorize useful things.

PARIS, UH . . . SPAIN?

HOW TO REMEMBER COUNTRIES AND CAPITALS

To remember countries and their capitals is no different from learning a word and its definition . . . well, except that it's even easier since the "definition" is just another word—the capital—not an entire sentence. You could honestly learn all 195 country capitals in a very short amount of time if you wanted to.

EXAMPLE 1—Afghanistan-Kabul

An *Afghan* dog (you know, those tall, pointy-nosed, long-haired dogs?) exploding *KABOOM*and turning into a *bull* (KABOOM-bull = Kabul).

EXAMPLE 2—Montenegro-Podgorica

A *mountain growing* (Montenegro) out of a string bean *pod* with all of its guts and *gore* pouring out (pod-gore = Podgorica).

REMEMBERING COUNTRIES AND CAPITALS

EXAMPLE 3—Estonia-Tallinn
Imagine a *stone* (Estonia) being thrown at a very *tall* giant (Tallinn).

EXAMPLE 4—Iceland-Reykjavik
Imagine *ice cubes* (Iceland) melting on top of a *rake* that's raking up a floor covered in *Vic's* cough medicine lozenges (rake-vic = Reykjavik).

EXAMPLE 5—Honduras-Tegucigalpa
A foreign, non-English-speaking Uber driver driving a *Honda* (Honduras) Civic asking if he can *take you* to *see* a pond filled with kelp fish (take-you-see-kelp = Tegucigalpa).

WHEN WAS THE BATTLE OF HASTINGS?

HOW TO REMEMBER HISTORIC DATES

To memorize historic dates, we basically need to memorize a definition (left-hand, right-hand equation) except with a number (either a year or a year and a date) on the left-hand side of our equation. Since we are well equipped with some buttery-smooth number strategies, we can memorize *anything* that has a number attached.

EXAMPLE 1—1066: Battle of Hastings

The famous battle that started the Norman conquest of Britain, and one of those dates that every British kid needs to learn in middle school. We can use the Major System to come up with an image for 1066. How about *eats-judge* (10–66)? Eating a judge super quickly, or rather, *hastily*! *NOM, NOM, NOM!* And if you want to add some more information, such as that the Norman forces were led by William the Conqueror, why not picture William Shatner conquering a judge on a battlefield and then eating him! *William Shatner conquering—eats-judge*. Let's go further and add the full date: October 14. We learned a few ways to add dates in chapter 5 (see this page), but let's imagine October as a color (I think of orange, because PUMPKINS!), and 14, using the Major System, could be a *tear*—an *orange tear*. Mixing it in with what we've already got, that judge, while being eaten, is crying *orange tears*.

EXAMPLE 2—November 6, 1860: Abraham Lincoln is elected.

The year 1863 can be encoded into *tough-shoes* (18-33). Picture a really tough, sturdy pair of shoes being thrown at President Lincoln as he wins the election, taking the stage for his victory speech. To add November 6, I'll use a color for November (maybe brown since it's a fall-ish color) and then a golf club to represent 6 (Number-Shape System, this page). I'm whacking *tough-shoes* with my *brown golf club* at *President Lincoln* giving his election victory speech. Nice.

Here's another useful strategy for **SEE**ing four-digit years. Choose a real or fictional location to represent the centuries. The 1800s could be a saloon in the Wild Wild West. The 1100s could be a medieval castle. The 1900s could be the Eiffel Tower. Whatever comes to mind when you think of a century, find a related location. Then, when you have a date you need to memorize, just dump all the images in the same location. Make sure to keep your locations relatively large and open so you have plenty of room to add new content. Let's try a few rapid-fire, made-up dates and events to show you what I mean:

EXAMPLE 3—

1845: ALIENS DANCE ON EARTH
1906: QUEEN IS DECAPITATED
2011: FLYING CAR INVENTED

I'll make the 1800s a saloon, the 1900s the Eiffel Tower, and the 2000s outer space (since it sounds futuristic and all). For this example, I'll use my PAO for the two-digit year.

PRO TIP

If I had multiple dates in the same century, there wouldn't be a problem storing them all in the same location. Remember, I stressed that the locations should be open and large so that there is room for everyone.

1845

PICTURE DUKE ELLINGTON (45 = D.E.) DANCING ON A MINIATURE EARTH WITH SOME ALIENS IN A SALOON.

1906

PICTURE STEVE JOBS (06 = O.S. . . . MAC OS X) DECAPITATING A QUEEN FROM THE TOP OF THE EIFFEL TOWER.

2011

PICTURE ANDRE AGASSI (11 = A.A.) FLYING IN A CAR IN OUTER SPACE.

WHAT DAY OF THE WEEK WERE YOU BORN?

HOW TO REMEMBER THE CALENDAR

A neat little trick to remember what day of the week any date will fall on in this year (2018), last year (2017), or next year (2019) is something called the Doomsday Calculation. It's actually not much memory at all. All you need to memorize are the following lists:

2016	
2017	
2018	

2019	
2020	

For the month, remember this list (I've included a quick mnemonic to help you):

Imagine 5 inches of snow in January	*January*	*1*
The 1 month that has the fewest days	*February*	*4*
1 man marching	*March*	*4*
Aprrrrrrril has an "R," so does April	*April*	*0*
May(be) if you're lucky, you'll have sex (six)	*May*	*6*
June is way 2 hot	*June*	*2*
July 4, Independence Day!	*July*	*4*
Think of a gust of wind blowing through an oval-shape hole	*August*	*0*
Start of the school year, 3-year-olds going to preschool	*September*	*3*
Think of 5 scary ghosts for Halloween	*October*	*5*
1st cold month of winter	*November*	*1*
3 kings for Christmas	*December*	*3*

And finally, one easy list for the days of the week:

Sunday	*0*
Monday	*1*
Tuesday	*2*
Wednesday	*3*
Thursday	*4*
Friday	*5*
Saturday	*6*

Okay, check it out. You're going to have to do a tiny bit of math here. (I know, I know! This is a memory book, not a math book! Just a little math, okay? The payout is awesome!) Every addition we do, whenever we spill over 7, we go back down to zero (and in our weird world of math, 7 is synonymous with 0). For example, say I have the number 2 and I add 2, that's 4. Duh. But say I have 4 + 4, that would typically be 8, but that spills over 7 by 1, so my answer is 1. If we start on a bigger number like 28, just divide by 7 and keep the remainder—that's essentially what we're doing here. So say we have 28 + 4. I take that god-awful large number of 28 (we don't like doing math with large numbers, right?) and divide it by 7 and keep the remainder: 0. Now it's just 0 + 4, that's 4.

The calendar date calculation goes as follows:

* **Take the number code for the year**
* **Take the number code for the month**
* **Take the number of the day**
* **Add them together (making sure to always divide by 7 and keep the remainder)**
* **Translate your answer, which will be a number between 0 and 6, into a day of the week: Sunday to Saturday.**

EXAMPLE 1—February 4, 2017

* **2017 is 1**
* **February is a 1**
* **4th is a 4**
* **That's $1+1+4=6$**
* **6 is a Saturday. February 4, 2017 was a Saturday.**

EXAMPLE 2—December 25, 2019

* **2019 is 3**
* **December is a 3**
* **25th is 25, but dividing by 7 and taking the remainder is 3 R 4, so 4.**
* **That's $3+3+4=10$. Again, divide by 7 and take the remainder, that's 3. Christmas Day in 2019 is a Wednesday.**

Pretty sweet, right? Now for the next few years you won't ever have to check a calendar, you'll know almost instantly what day of the week a certain date falls on.

PRO TIP

One small detail you'll have to keep in mind are leap years (a year where there is one extra day in the calendar year). Both 2016 and 2020 are leap years. For those cases, you need to subtract 1 ONLY IF your month is February or March.

Now what if you want to do *any* year in history? There is a way to do this, but it requires a little more memorization and math. See my website, www.nelsondellis.com/memorize-the-calendar.

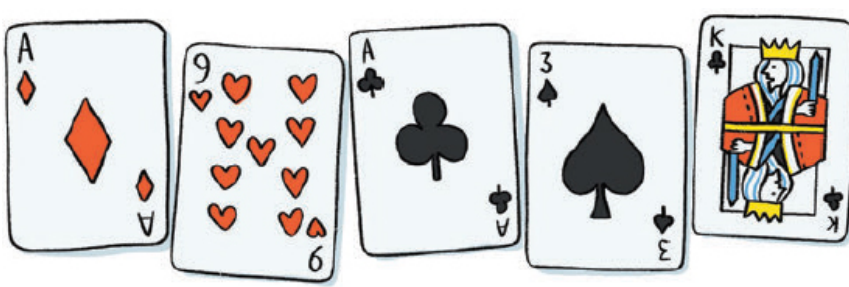
ACE OF HEARTS, KING OF DIAMONDS . . .

HOW TO REMEMBER A DECK OF CARDS

When you first picked up this book, I bet you were downright itching to get past all the incredibly practical, everyday memory techniques so you could get to the really fun and mostly useless little tricks at the end. Well, I decided to save the best for last: It's time to learn how to memorize a deck of cards!

It's not as useless as you think, though. While it may not save you any grief at a meeting or on a test—and it won't be of much use at the blackjack table, unless you can find a casino that pays out for simply remembering the exact order of cards that have already been dealt—***the ability to memorize a deck of cards is one of the best ways to practice, measure, and improve your mnemonic abilities.*** Plus, once you get the hang of it and get fast enough to not bore people to death while they wait for you to memorize, it's actually a pretty impressive feat to show off at parties. As you improve, you'll find that you're not only more confident in your memory but also better at tuning out distractions in other areas of your life. And it's incredibly easy to train; you just need a deck of cards and your mind.

Now, I never said memorizing a deck of cards was easy. Some people think it should be, since memory is all about visualization and cards are visual objects with different sorts of distinguishing marks. Unfortunately, all those marks are actually multiple layers of abstract information, hard to distinguish from one another—especially when you're staring at fifty-two of them. Try to start with just five cards, with no technique, and see if you can remember that many (in order):



Spend about twenty seconds staring at those cards, then do something else to take your mind off them momentarily. Go check your email. Have a daydream about kittens flying World War I–era biplanes, wearing leather helmets and goggles. Do whatever it takes to get those cards out of your working memory, to see if you've got them

stored more securely.

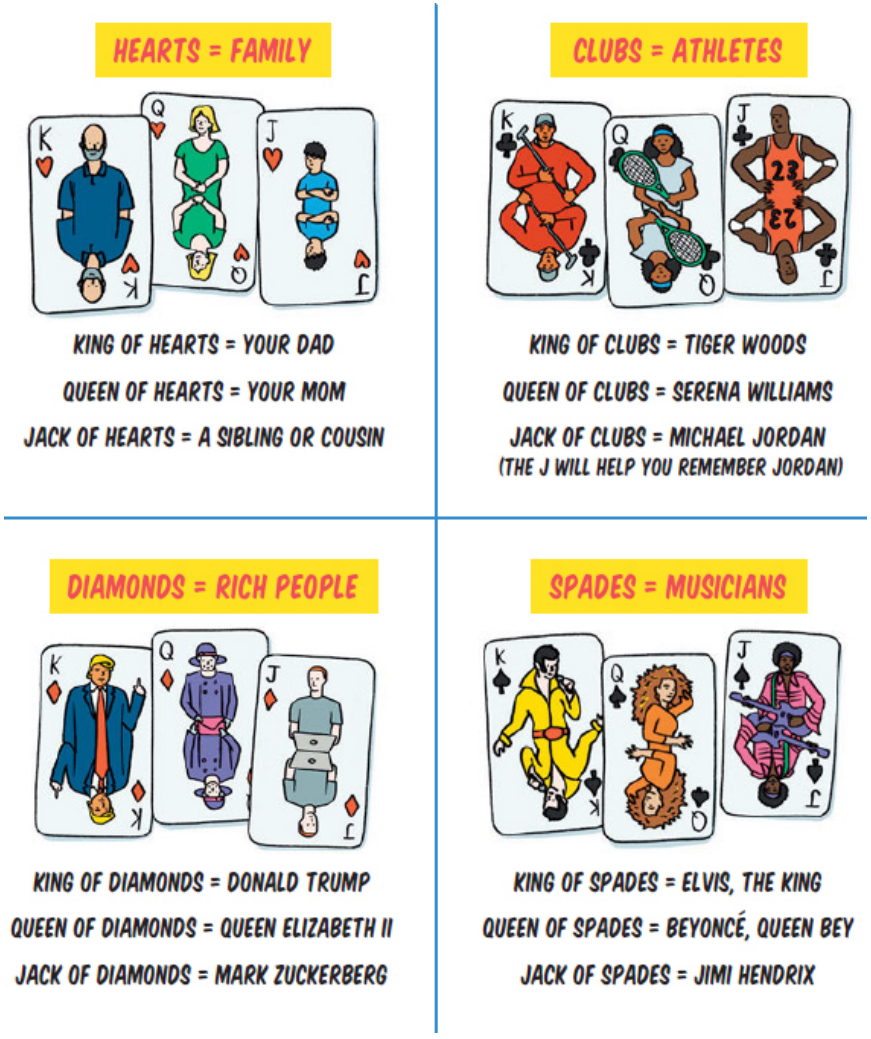
Annnnnd . . . welcome back. Don't look at the cards yet! Do you remember them perfectly? Okay, *now* you can look at them to see if you remembered them. How'd you do? Think you can multiply that challenge by ten (or 10.4, to be exact)? I know you can, but as always, you need a system. Go grab a deck of cards, and get ready to dive in.

PAO, AGAIN

Awwwwww yeah—your most favorite chunking method ever is back with a vengeance and it's . . . pretty much the same as it was when you created your two-digit number system (see this page). In fact, you can even repurpose some of your people from your number system, because the first letters of all four card suits—H, C, D, and S—are also letters in the PAO System. For instance, if your person for the number 68 is Stephen Hawking (S.H.), you can also use him for the 6 of hearts (H = 8); if Nicolas Cage is 93 (N.C.), he can also be the 9 of clubs (C = 3). There are other ways to assign people to the numbered cards (ace through 10), but let's skip them for now and focus first on face cards.

Got your deck handy? I want you to go through it and pull out the twelve face cards—just the kings, queens, and jacks. Before you try to implement a system, I want you to simply look at each card and see if you can come up with an intuitive association for it. You may not have an immediate association with every one, and that's okay. Only a few jumped out at me: The king of clubs was Tiger Woods (since he's the king of swinging a golf club); the king and queen of hearts were my dad and mom, whom I love with all my heart. You want to start with these because you're already "fluent" in their code—which is to say, you don't have to look up at the ceiling and think, "Okay, the king is a K, and the hearts are an H, so that's KH, and the person with initials KH is . . ." No, with these you should be able to think of the relevant person as soon as you see the card.

Once you've made all the immediate associations you can (which shouldn't take long, of course), you need to consider who you want to represent each of the remaining cards. You can use the PAO System if you'd like—though you may not come up with too many first names starting with Q, so you're better off using something like M or R for the Queens. However, you may come up with better associations if you think of each suit as its own category. The king and queen are then the top man and woman within that category, and the jack is a younger or secondary figure. Here's one way to do it:


HEARTS = FAMILY
KING OF HEARTS = YOUR DAD
QUEEN OF HEARTS = YOUR MOM
JACK OF HEARTS = A SIBLING OR COUSIN
CLUBS = ATHLETES
KING OF CLUBS = TIGER WOODS
QUEEN OF CLUBS = SERENA WILLIAMS
JACK OF CLUBS = MICHAEL JORDAN
(THE J WILL HELP YOU REMEMBER JORDAN)
DIAMONDS = RICH PEOPLE
KING OF DIAMONDS = DONALD TRUMP
QUEEN OF DIAMONDS = QUEEN ELIZABETH II
JACK OF DIAMONDS = MARK ZUCKERBERG
SPADES = MUSICIANS
KING OF SPADES = ELVIS, THE KING
QUEEN OF SPADES = BEYONCÉ, QUEEN BEY
JACK OF SPADES = JIMI HENDRIX

Your categories don't have to be the same as mine. They can be anything you know well and can distinguish as distinct individuals with distinct actions and objects. Maybe you don't know sports well enough to come up with a few specific athletes you can visualize; maybe Greek mythology is more your thing. So pick out a suit (maybe spades, since the spade somewhat resembles a mountain, i.e., Olympus) and make Zeus a king, Hera a queen, and Apollo a jack. Once you've assigned people to the face cards, you'll need actions and objects for them. We know this process all too well from chapter 5 (this page), so flip back to that part if you need a refresher.

Now, with those twelve cards in hand, I want you to go through them, one by one, and really try to visualize the people performing

their actions with their objects. Make sure you really know them before trying to memorize them. After you get the hang of recognizing and visualizing the cards' images, pick out a small journey to practice —you need only four anchor points since you'll be storing three cards as one image: person-action-object. Shuffle the cards and lay the first three in front of you, then visualize the first card's person performing the second card's action with the third card's object in the first anchor point, and so on.

Here's a random ordered set of those twelve face cards and what I would imagine upon seeing them (I'll place them in an apartment of someone I know and use my PAO system on this page):

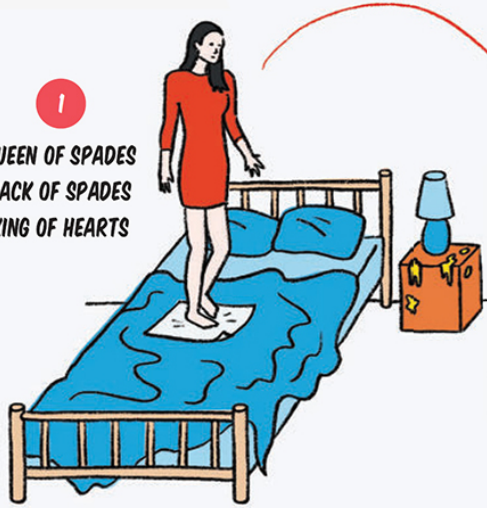
EXAMPLE—

QS—JS—KH—KD—JD—JC—KS—QC—QH—JH—QD—KC

1 **QS—JS—KH** (Jennifer Connelly—moonwalking—on a piece of paper.) I'll place this bizarre image on the bed. There's Jenny ruffling up all the sheets as she strangely attempts to moonwalk backward on top of a sheet of paper.

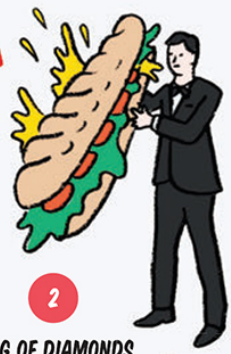
2 **KD—JD—JC** (James Bond—crushing—a sandwich.) This image goes on the nightstand. A miniature version of James Bond is holding an oversize sandwich in his hands and crushing it until it splatters all over the nightstand and his face.

MEMORIZING FACE CARDS



1

QUEEN OF SPADES
JACK OF SPADES
KING OF HEARTS



2

KING OF DIAMONDS
JACK OF DIAMONDS
JACK OF CLUBS

3

KING OF SPADES
QUEEN OF CLUBS
QUEEN OF HEARTS

4

JACK OF HEARTS
QUEEN OF DIAMONDS
KING OF CLUBS

3 **KS—QC—QH** (A rabbi—dancing—with a frying pan.) There's a full-length mirror next to the nightstand. I'm going to imagine a rabbi looking at himself in the mirror as he dances a heavy salsa routine while clutching a frying pan close to his chest quite passionately as if it's his dance partner.

4 **JH—QD—KC** (Jack Sparrow—shopping—for a golf club.) The final image will go in the closet. We see Jack Sparrow prancing around the closet space with big Bloomingdale's shopping bags in his hands as he stuffs all sorts of golf clubs into them (they don't really fit, but whatever!).

That's it! Your images probably won't resemble mine, but now you know exactly the process that goes through my head as I attempt to memorize a deck of cards.[‡‡]

Once you're comfortable with your face cards, you're ready to bring in the rest of the deck. If you like your number system and can incorporate the appropriately initialed people with the corresponding cards (Aces representing 1s, and 10s representing 0s), that may be your quickest way to compile a card system. If you need some extra help, have a peek in the appendix on this page to see my full PAO card system.

As you practice, if any particular cards give you trouble, you can swap in new people using your suit categories. For me, the 4 of hearts was hard to remember as David Hasselhoff (D.H.), so I thought about a D name that would fit the loved ones category (loved ones = Hearts). Ultimately, I pictured my old dog (D for dog; the 4 also corresponds to a dog's four legs), and that turned out to be way more memorable for me.

After studying the number cards by visualizing them one by one, the same way you did with the face cards, try splitting a deck in half and storing those cards along a nine-anchor-point journey (since 9 times 3 is 27 but you'll be using only 26 cards, the last image will be just person-action with no object). Take as much time as you need to get those images in there, but keep track of your time with a timer. If it takes you half an hour, that's okay; just make note of the time so you can try to beat it later. The slower you go at first, the easier it'll be to beat!

Try to get everything stored in one pass—no peeking at the last card or starting over from the beginning—and then take a second pass to see if you can remember the cards one at a time. Start by recalling the first one before you flip it over, then connect that with your

mental image at the first anchor point to remind you of the second and third cards. If you get stuck at any point where you know the next card is a person or action but can't place it, flip that card over and see if it reminds you of the action or object card that follows. Once you can get through a full pass like that without errors, try to memorize in one pass and then recall by writing out the order, then checking it against the cards to see how you did. Time yourself on the memorization and recall portions separately, and log your times to see how you improve day by day.

One of the biggest struggles when starting out is quashing the temptation to look back at the cards you've already seen. There will be an internal struggle as you memorize, where your mind will be saying, "You need to look back at the previous cards again—you DON'T have them memorized!" But you do! Don't go back. TRUST your memory. You'll make bigger gains by resisting that urge, I promise.

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* Alexander Smith was a nineteenth-century Scottish poet, essayist, and, early in life, pattern-designer of lace. This quote is from "Of Death and the Fear of Dying," in *Dreamthorp: A Book of Essays Written in the Country* (Hamburg: tredition, 2012), 58.

† A rhapsode is a person who can recite poems of the epic kind from memory (think of the lengthy Greek Homeric epic poems).

‡ Did you know that the phrase "in the first place" dates back to ancient orators accessing the first place of their mental journey, so they could remember their first topic of discourse? Even more interesting, the ancient Greek word *topos* (which is the origin of "topic") means "place." MIND BLOWN.

§ For those who may not get this reference, there was a viral video a number of years ago called "The Crazy Nastyass Honey Badger." The video is real nature documentary footage with user-added narration that is absolutely hilarious. The commentator keeps saying that the "honey badger doesn't care" as it does all sorts of crazy things. Google it. You'll laugh!

¶ Just don't close your eyes to visualize while driving or operating heavy machinery.

** These words are taken straight out of *A Song of Ice and Fire* by George R.R. Martin. Huge *Game of Thrones* fan over here! When I first read through the series, I always wrote down words that I had never seen before. These are some of them.

†† If you want to use *chou* more affectionately, add the word *mon* in front of it (which means “my”). *Mon chou* literally means “my cabbage,” but translates to “my dear” or “sweetie.” Also, fun fact, adding the word *fleur* (flower) to the end of *chou* as in *chou fleur* turns that cabbage into a “cauliflower”! French is beautiful!

‡‡ After years of training, I can memorize a whole deck in about thirty seconds. At that pace, everything I described with the face cards would whizz through my brain in about ten seconds.

CHAPTER SEVEN

The Last Few Things to Make Your Memory an Absolute Memorizing Monster

The root of all health is in the brain. The trunk of it is in emotion. The branches and leaves are the body. The flower of health blooms when all parts work together.

—KURDISH SAYING

Up until now I've covered pretty much every little thing you could ever possibly need to improve your memorization skills. I've shown you how to attack almost any type of information, using one of my strategies or by comfortably figuring out your own. I've provided tons of examples and some guidance to help you master the techniques, which you may have noticed aren't incredibly difficult. Hopefully, you feel that you've awakened the memory power that was always in you, lying dormant until you picked up this book. But besides the techniques and strategies to memorize all the things you could potentially come in contact with in your daily life, there are some other tips, let's call them . . . intangibles, that if incorporated into your daily regimen will help you have not only a better memory, but a healthier *brain* as well. Remember that when I started on this journey to improve my memory, it wasn't just so I could impress my friends by memorizing a deck of cards, nor was it so I could remember the names of everyone I met. It was so that I would be able to keep a strong and healthy mind for as long as I live; so that what happened to my grandmother would never happen to me.

Enter your personal memory coach, Nelson Dellis (me! hello!). Everything up until this point has been "How do I memorize this?" and "How do I memorize that?"—but not so much "How do I get better at memorizing once I already know how to memorize this and that?" or "What are other things I can do to improve my memory that don't involve actual memorizing?" Obviously, the first thing you should have been doing as you learned the techniques throughout the book is put them into practice in your life. If you're about to meet a

ton of people, use the techniques we discussed in chapter 3 (see this page); if you're in need of holding on to that login password for your email account, refer to our strategies in chapter 5 (see this page); if you're pressed for time and have a speech to deliver the next morning or if you're in need of a memory boost as you study for your SATs, implement the techniques you learned in chapter 6 (see this page). I hope you noticed that I've tried to make all the examples in this book come close to the real-life situations you might find yourself in, so that the memory tips are as practical as possible. With that in mind, you should find that it's easy to incorporate everything you've learned so far to enhance your daily life.

That being said, this last chapter will serve as an offering of some last few tips to make sure your memory stays in tip-top shape and that your brain stays healthy. (Also, for those interested in taking their memory training to the next level and for those not satisfied with using just everyday situations as practice, I suggest some ideas for daily training and some tools to help train in the appendix on this page.)

Incorporating everything you've learned so far in this book to enhance your daily life is all well and good, but how do you keep your brain strong and healthy? What can I do *now* to help my aged brain, decades from now? These were the main driving questions I had when I first began this quest to improve my memory. I didn't want to end up suffering from Alzheimer's disease when I got older, as my grandmother did, so I thought if I kept my brain healthy and fit, I might prolong its lifespan.*

Over the years of my memory studies and training, I've come up with four key pillars of brain health that I try to live by on a daily basis that I recommend you try as well. These are things I personally believe will improve your cognitive sharpness and the longevity of your brain:

DIET

FEEDING YOUR BRAIN PROPERLY

PHYSICAL TRAINING

STAYING ACTIVE AND FIT

SOCIAL INTERACTION

KEEPING YOURSELF INVOLVED SOCIALLY IN YOUR COMMUNITY

BRAIN TRAINING

TRAINING AND CHALLENGING YOUR BRAIN AND MEMORY REGULARLY

I know what you're thinking. "Diet? Exercise? Really, Nelson? I just bought this book to work on my memory, not my body!" Don't fret: I'm not going to ask you to stop eating pizza or do intense interval training every day. All I'm going to propose are a few tips and suggestions—simple things you can incorporate into your lifestyle. All have sound science behind them, and I've seen firsthand (by meticulously analyzing my memory training scores and data) just how much of a difference even a small amount of these changes can make.

So are you in? You already have the tools. Now you just need the right oil, fuel, and nuts and bolts to make your brain the complete package.

I THINK, THEREFORE I AM . . . WHAT I EAT

TIPS FOR IMPROVING MEMORY BY EATING RIGHT†

As a general rule of thumb, whatever is good for your body is good for your brain. There are, however, a few things to eat that may boost your memory, and a few things to avoid that may hamper it.

The most convincing evidence so far is the "Memory Improvement with Docosahexaenoic Acid Study,"[1] also known as the MIDAS study, in which subjects aged fifty-five and older with mild memory complaints were given a daily dose of supplemental Docosahexaenoic Acid (DHA), an omega-3 fatty acid that's an important structural component of the brain and is often extracted from fish oil as a nutritional supplement. When taken over six months, DHA was correlated with statistically significant improvements in cognitive function, including memory and learning. The subjects took 900 mg of algal DHA daily, in the form of a capsule. This is also what I recommend and have been taking for years, mainly because of this particular study and also because of the results I've noticed while taking that dosage versus not taking anything at all. Most people are familiar with taking fish oil pills, and hey, you may even be taking some already, but check that you're getting around 900 mg of DHA. EPA and ALA are two other omega-3 fatty acids that are commonly found in supplements, but be aware that these fatty acids eventually convert to DHA and it takes a lot of each to equal a very small amount of DHA. So in short, make sure you're going straight for the good stuff and getting that DHA omega-3 specifically.

Other studies have shown that berries, or other foods that are high in antioxidants (pecans, artichoke, and kidney beans, to name just a few), can help fight the high susceptibility of the brain to oxidative damage.[2]

While there are definitely some proven mental health benefits to eating certain foods, when all is said and done, eating well and avoiding the bad stuff—a healthy diet—will do wonders for your mental clarity.

PRO TIP

I often get the question, should I just eat more fish? Always check with your doctor or a dietitian, but my answer to that is no. There have been shown to be health issues related to too much fish consumption, so stick with a supplement. You'll get more DHA that way anyway. And if you want to avoid the fish-oil-pill fish burps, try taking algal DHA (i.e., DHA capsules that are in algae form). The algae is the stuff that has the DHA, not

the fish. The fish eats the algae, which is why fish oil also has DHA. Make sense?

I have a sweet tooth and love to eat high-carb foods like bread and pasta, but I limit them as best I can and often adhere to diets that completely eliminate some of those foods for long periods. (Some favorite go-to diets of mine are the Ketogenic Diet, the Paleo Diet, and the Whole30 diet[3]—basically all modified versions of the Atkins Diet, which focuses on eating only whole, natural foods; that means no dairy, processed foods, sugars, or alcohol, and low to zero carbs.) Sticking to a strict diet can be difficult, I know, but there is no denying the benefits that can follow, ranging from improvement in focus to heightened mental acuity, to of course a better memory. In fact, recent studies have shown that the Ketogenic Diet (low-carb, high-fat) can do absolute wonders for your brain by reducing inflammation, sharpening cognition, and eliminating that all-too-common brain fog.[4] Oh, and as for those ginkgo biloba supplements that you've probably heard about that are supposedly brain-friendly? Not only are they ineffective, a recent toxicology study showed that ginkgo biloba actually caused cancer in lab rats.[5] ***If you want that quick fix for improved memory without the training and techniques, look into changing your diet***—you'll be amazed at the results from such a simple change.

I'M TIRED AND I CAN'T REMEMBER ANYTHING!

TIPS FOR IMPROVING MEMORY BY SLEEPING RIGHT

Diet is great for your brain, but the most important thing you should be feeding your brain is sleep. ***A good night's sleep helps you better form memories the next day, and it also helps you hang on to the things you learned the day before.*** Pulling an all-nighter could lower your memory performance by up to 40 percent.[6] Sleeplessness also seems to make our memories more susceptible to interference,[7] which means more confusion and less confidence in our minds. I always aim to get at least seven hours of sleep, as many nights of the week as I can. Of course, things come up: I have a late night with my friends, or I'm traveling on long flights, working long hours (basically, *life*), but it's all about balance. Try to make up for that sleep somewhere else in the day with a well-placed power nap. Or instead of Netflix-binging your favorite television series in one night until you're bleeding from your eyes, hang up your cleats and get to bed earlier than usual. Your body and mind will thank you not only in the short term but in the

long term as well.

NO PAIN, NO GAIN, SLIGHTLY MORE BRAIN

TIPS FOR IMPROVING MEMORY BY STAYING ACTIVE AND EXERCISING

After many conclusive studies on exercise and memory, at this point it's practically a fact that exercise benefits your brain. ***Aerobic exercise has been demonstrated to increase the size of the hippocampus,*** which is one of the primary brain regions for memory.[8] It also improves spatial memory[9] and cognitive function,[10] and some studies on rats have shown that exercise during pregnancy improves the offspring's memory, even as an adult.[11] It's also a given that when you exercise, you generally feel better about yourself. You feel healthy, you look better, blood flow to the brain is improved (since your brain is a highly vascular organ), and your body runs better altogether. You will feel sharper and more on your game just because you were active. To be honest, some of my best memory training sessions have come straight after a satisfying workout. In addition to health benefits, getting a workout in also clears my mind. Whether I'm going for that casual jog or exerting myself to the max with a CrossFit workout, those moments (fifteen minutes, thirty minutes, an hour, whatever!) allow me to reflect on whatever is on my mind. It's a time for my mind to dump all the stress and superfluous thoughts that have been running rampant on that particular day. When I come back from my workout and sit down to do some work, I find it easier to focus and process the task at hand without distraction. It's like an automatic mental distraction-purging system. So get moving! There's no need to get intense with your workouts (although it doesn't hurt if you can); just doing something active on a regular basis will work wonders.‡

HANGING OUT WITH THE JONESES

TIPS FOR IMPROVING MEMORY BY BEING SOCIALLY ACTIVE

It's a sad truth, but loneliness has been shown to lead to higher blood pressure and higher levels of stress[12]—and it's not hard to imagine why. In one of her studies, Harvard epidemiologist Lisa Berkman surveyed seven thousand people on their levels of social integration over time, and discovered that those who scored low on those measures were 2 to 2.5 times more likely than average to die over a

seven-year period.

While social interaction certainly boosts quality of life, it can boost other things too: Elderly women with larger social networks have been found to be less susceptible to dementia than their less-connected peers.[13] On a more basic level, socializing involves learning new things about different people and retaining that information in order to interact comfortably with them. Whether that means knowing the details of their life stories and their interests or simply how to hold a conversation without pissing them off, it's a way to broaden your mental frame of reference so you have more associations to help you remember. And of course, at the very least, meeting new people is a great way to practice your newfound names-and-faces memory skills.

ALL ABOARD THE BRAIN TRAIN

TIPS FOR IMPROVING MEMORY BY USING YOUR BRAIN

I'm going to do today what other people aren't willing to, so I can do tomorrow what other people can't.

—Someone Who Knows What She's Talking about

As important as diet, sleep, exercise, and social activity are to maximizing your memory, the biggest booster of all is keeping your brain active. What does that mean? Simply put, it means challenging your brain—and this is key—*on a regular basis*. It can be as simple as trying a new language, reading something new and difficult, learning a new skill, doing puzzles, or (my personal favorite, of course) memorizing. Even when I've been high up on a mountain, my body physically distressed and social interactions totally out the window, I was still able to use some of my memory techniques to memorize a deck of cards in the Death Zone[§] on Mount Everest as well as on the summit of Mount Kilimanjaro (true story!). In other words, I was still able to improve my memory, using the pure power of technique. Part of it can be attributed to all the training I had put in well before. But a large part of it was due to the techniques themselves.

A big part of keeping your brain active on a daily basis, though, is staying *motivated* to do so. One of the most common questions I get about my memory skills is "Do you *really* think *anyone* can do this, or do you have a gift?" and my answer is always "No, anyone can do it." This is mostly true, with one little caveat: Anyone can do it, *provided*

he has the drive to do it. But this is true with any skill, more or less. We all have the potential to practice something a lot, but what we don't all have is the drive and dedication necessary to do that practice every day. And that's fine. Look, I would love to be an expert jazz trumpet player, but I don't think I have the drive and dedication to practice that every day and become an expert jazz trumpet player. My point is this: Keep your brain active by doing something you are passionate about enough to do it every day. For some, this might be memorizing something (like me), for others, it might be learning a new skill or language; for still others it might be practicing a new baking recipe—the list goes on. The great thing about memory is that there are tons of daily uses where you can naturally practice without having to set aside time to do it. So make memory your daily brain exercise or make it something else, it's up to you! Just make sure you challenge your brain in some way every day.

Before we finish, let me remind you one last time: ***Trust your memory.*** That's what really sets apart the best memorizers from the rest of the pack, when it comes down to it. When you trust your memory, you begin to build confidence in your memory. And when you have confidence in your brain and your mnemonic powers, you will be unstoppable; your *progress* toward an unstoppable memory will be unstoppable. And to get to a point where you can trust your memory completely, you need to train. It all comes full circle. There are no shortcuts to this; it's like any other skill. Think of Ray Allen in Game Six of the 2013 NBA Finals: He gets a pass from Chris Bosh with five seconds left in the game, and without thinking about it, he catches and shoots from the tiniest space in the corner of the court. *SWISH*. The game is tied, it goes into overtime, and the Miami Heat prevails with one of the most crucial victories in the history of the franchise. Do you think Ray Allen would've been able to make such a high-stakes shot if he hadn't been practicing three-pointers his whole life? He's shot them so many times in so many different situations and under varying levels of pressure that he doesn't think about how to do it; he just *does*. What this comes down to is the trust and confidence he built inside his mind from all of that training and practice, the thousands of hours spent alone in the gym firing threes.

Even if you're not trying to become one of the best memorizers the world has ever seen, you'll still want to cultivate something close to what Ray Allen and other clutch performers have: a feeling of flow, confidence, and ease, which in our case pertains to memorizing. Don't worry—you don't need ten thousand hours of practice (as Malcolm Gladwell posits in his book *Outliers*) to master your memory. In many

ways, you've already spent far more than ten thousand hours working on your memory before you even picked up this book. All you needed was a little instruction to take things a bit further and harness two of your most sharply tuned skills: visualization and spatial recognition. What you need to get to that point of supreme confidence is your own daily training regimen: something consistent to keep those memory wheels turning. If you need a bit of help setting this up, flip to the appendix (this page).

FAREWELL AND GOOD LUCK!

With that, I bid thee farewell!

In general, as with all the other techniques in this book, you'll find that as you start implementing them in the most obvious areas of your life (like the ones I'm specifically suggesting), you'll see more and more opportunities to use them in other ways. Although you can do some clever little parlor tricks with your newfound skills, you're primarily stocking your mental utility belt in order to remember the things that matter. The more you put each of these tools to use, the more you'll find it to be an endless Swiss Army knife of possibilities.

I hope this book has been a great help in making you realize how good your memory *actually* is (better than you initially thought, I bet, huh?) and that with a little bit of strategy and technique, your memory can be a real powerhouse.

If you only walk away with one concept from this book, I hope it is **SEE–LINK–GO!** Whenever you're faced with a memory-related task, breathe, take a moment, and go through those three familiar steps. **SEE** the thing you're trying to memorize as an image; give it life, give it color. **LINK** that image (or sequence of images) to something you already know; anchor it to that thought, that peg, that location on your memory journey. And finally, make sure that you really **GO!** and mesh all those pieces together into one memorable image that is totally, unequivocally impossible to forget. Don't forget to trust your memory and remember to pay attention. Keep all of that in the front of your mind and no matter what it is that you're trying to memorize, you will ***Remember It!***

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* Research is still generally inconclusive, although a few studies suggest this may be true. Particularly, this study: Jerry D. Edwards et al. "Speed of Processing Training Results in Lower Risk of Dementia," *Alzheimer's &*

Dementia: Translational Research & Clinical Interventions 3, no. 4 (November 2017): 603–11, https://doi.org/10.1016/j.trci.2017.09.002.

† I am by no means a dietitian, neuroscientist, or doctor, and any recommendation I make here is purely a suggestion based on my personal experiences.

‡ If you want to take your physical exercise even further, why not combine it with some mental exercise? While exerting yourself physically try simultaneously memorizing a list or recalling something you recently learned.

§ The Death Zone is the region on Mount Everest that sits above 26,000 feet (7,900 m). It is generally accepted as a zone where the body can no longer acclimatize and is, in effect, dying.

In the gardens of memory, in the palace of dreams, that is where you and I will meet.

—THE MAD HATTER

APPENDIX

In the pages to follow you'll find information on my training regimen, a list of helpful sources, and plenty of memory inspiration. At times, in the book, I mentioned referring to the appendix for "full lists" or "example lists" of my own. Here they are, in case you need a little help getting started!

ALPHABET PEG LIST

Here are two examples of my Alphabet Peg Lists. I have one in which the letter is paired with an image that starts with the letter, while the other one is based on a rhyming scheme. Use whichever suits your fancy, or customize it so it works with your own associations.

Starting *with* the letter:

A - APPLE
B - BAT
C - CAR
D - DOOR
E - ELEPHANT
F - FISH
G - GRASS
H - HOUSE
I - ICE CREAM
J - JAR
K - KITE
L - LOG
M - MAN
N - NUT
O - OWL
P - PIG
Q - QUILL
R - ROCK
S - SOCK
T - TOY
U - UMBRELLA

V - VANE
W - WIG
X - X-RAY
Y - YAK
Z - ZOO

Sounding like the letter:

A - HAY
B - BEE
C - SEE
D - DEED
E - EVE
F - EFFORT
G - JEEP
H - AGE
I - EYE
J - JAY
K - KEY
L - ELBOW
M - HEM
N - HEN
O - HOE
P - PEA
Q - CUE
R - OAR
S - SASS
T - TEA
U - EWE
V - VEAL
W - DOUBLE YOU
X - AX
Y - WIRE
Z - ZEBRA

NUMBER-RHYME SYSTEM

A Number-Rhyme list was included in chapter 5 (this page), but I alluded to a list that went all the way up to 20. You'll notice that the teen number rhymes are a bit of a stretch. It's not easy getting longer

words to rhyme! It's like trying to find a word that rhymes with *orange* (*psst, Stonehenge*, perhaps?).

0 - HERO
1 - BUN
2 - SHOE
3 - TREE
4 - DOOR
5 - HIVE
6 - STICKS
7 - HEAVEN
8 - GATE
9 - WINE
10 - HEN
11 - LEAVEN
12 - ELF
13 - THIRSTING
14 - FORDING
15 - FITTING
16 - SISTINE
17 - DEAFENING
18 - WAITING
19 - KNIGHTING
20 - PLENTY

TWO-DIGIT FIXED MAJOR SYSTEM (00-99)

These are my recommended two-digit fixed Major System images (as mentioned on this page). I personally have never pre-learned this, but these are the images I thought up for you to learn if you so desire:

00 - SAUCE
01 - SEED
02 - SUN
03 - SAM
04 - ZERO
05 - SEAL
06 - SASH
07 - SACK

08 - SOFA
09 - SUB
10 - TOES
11 - DAD
12 - DUNE
13 - DIME
14 - TIRE
15 - DOLL
16 - TISSUE
17 - DUCK
18 - DOVE
19 - TAPE
20 - NOSE
21 - NET
22 - NUN
23 - NEMO
24 - NERO
25 - NAIL
26 - NOTCH
27 - NECK
28 - KNIFE
29 - KNOB
30 - MOUSE
31 - MAT
32 - MOON
33 - MUMMY
34 - MOWER
35 - MULE
36 - MATCH
37 - MUG
38 - MOVIE
39 - MAP
40 - ROSE
41 - RAT
42 - RAIN
43 - RAM
44 - ROAR
45 - RAIL
46 - RASH

47 - ROCK
48 - ROOF
49 - ROPE
50 - LACE
51 - LOOT
52 - LION
53 - LAMB
54 - LURE
55 - LILY
56 - LEASH
57 - LOG
58 - LAVA
59 - LIP
60 - CHEESE
61 - SHEET
62 - CHAIN
63 - JAM
64 - CHERRY
65 - JELL-O
66 - JUDGE
67 - CHALK
68 - CHEF
69 - SHIP
70 - GAS
71 - CAT
72 - CAN
73 - COMB
74 - CAR
75 - COAL
76 - CASH
77 - COKE
78 - CAVE
79 - CAPE
80 - FIZZ
81 - FAT
82 - FAN
83 - FOAM
84 - FIRE
85 - FILE

86 - FISH
87 - FOG
88 - FIFA
89 - FIB
90 - BUS
91 - BAT
92 - PEN
93 - OPIUM
94 - BEAR
95 - BELL
96 - BUSH
97 - BOOK
98 - BEEF
99 - PIPE

PAO LIST FOR NUMBERS (00-99)

Here is my original two-digit number system. I have now grown this to a three-digit system, but this is the original list I created back in 2008, sitting on my couch in Chicago. As you'll see, some are based on intuitive associations, while others strictly follow the PAO System rules. Finally, some stragglers have no real reason for being a certain number (you'll see them marked with ??); they were born of a need to associate a person important to me with a number. Apologies to the ex-girlfriends included here; all remain memorable to me (in both good and bad ways). Hey, sometimes you gotta keep the bad and the good just to benefit your memory, right?

One last thing to stress about this list: Please try to come up with your own images. I'm sharing mine to help inspire you; nothing will beat the memorableness of a list you create yourself. Firstly, the images you think of will be more meaningful to you. Secondly, the painstaking process of coming up with one hundred images, in itself, will make the images more memorable to you.

00 - (OO) - Ozzy Osbourne - sucking - blood
01 - (O1) - George Washington (first president) - axing - ax
02 - (OB) - Obi-Wan Kenobi (*Star Wars*) - using the force - light saber
03 - (OC) - Jack Black (from the movie *Orange County*, OC) - wrestling - floor
04 - (OD) - Oscar De La Hoya - punching - glove
05 - (O5) - Abe Lincoln (president on the 5-dollar bill) - buying

something - dollar bill

06 - (OS) - Steve Jobs (Mac OS X) - typing - laptop

07 - (O7) - James Bond (OO7) - sipping - martini glass

08 - (OH) - "OH-mar" (Omar, my gynecologist friend) - touching a vagina - vagina

09 - (ON) - Olivia Newton - doing jumping jacks - spandex clothes

10 - (10) - Tony Blair (formerly of 1O Downing St.) - giving a speech - podium

11 - (AA) - Andre Agassi - playing tennis - tennis racket

12 - (12) - Me (my sports jersey number in high school) - solving - Rubik's Cube

13 - (13) - Ex-girlfriend (her favorite number) - shaking her butt - thong

15 - (AE) - Albert Einstein - writing on a chalkboard - chalkboard

16 - (AS) - Arnold Schwarzenegger - lifting - barbell

17 - (AG) - Alex G. (pilot friend of mine) - flying - plane

18 - (AH) - Kid from *Home Alone* movies ("AHHHHHH!") - screaming - scream

19 - (AN) - ArNaud (friend of mine) - kayaking - kayak

20 - (BO) - BOno from U2 - putting on sunglasses - sunglasses

21 - (BA) - Brian (friend of mine) - taking a poop - poop

22 - (22) - Ex-girlfriend (favorite number was 2) - crying - tears

23 - (BC) - Jesus Christ (BC = Before Christ) - being crucified - cross

24 - (24) - Kobe Bryant (his jersey number) - dribbling - basketball

25 - (BE) - Billy Elliot (dancer kid from movie) - doing ballet - tutu

26 - (BS) - Britney Spears - dropping something while saying "Oops, I did it again" - snake

27 - (BG) - Staying Alive Bee Gees - doing the *Saturday Night Fever* dance - bellbottom pants

28 - (??) - Jennifer (my sister) - angry - tongue (she was 28 when I made her a number)

29 - (29) - Ex-girlfriend - performing a sex act - penis (randomly decided her to be 29)

30 - (CO) - Conan O'Brien - wearing a wig - wig

31 - (CA) - Chet Atkins - playing the banjo - banjo

32 - (CB) - Charlie Brown - whiffing a football kick - ball

33 - (C3) - C3P0 (*Star Wars*) - doing the robot dance - robot

34 - (34) - Shaquille O'Neal - dunking - backboard

35 - (CE) - Clint Eastwood - shooting - pistol

36 - (CS) - Sniper (from the game *Counter-Strike*, CS) - sniping - sniper rifle

37 - (CG) - Bruce Willis (in movies with CGI graphics) - dodging bullets - comet

38 - (3H) - 3 of hearts (Jana, friend of mine) - putting on lipstick - lipstick

39 - (CN) - Chuck Norris - kicking - shoes

40 - (DO) - Dominic O'Brien (memory legend) - memorizing cards - cards

41 - (DA) - DAd - signing - paper

42 - (DB) - David Blaine - smoking - cigarette

43 - (DC) - David Copperfield (or any generic magician) - waving a wand - wand

44 - (DD) - Dolly Parton (she has double Ds) - shaking her boobs - boobs

45 - (DE) - Duke Ellington - playing trumpet - trumpet

46 - (DS) - Super Mario (Nintendo DS) - bouncing - mushroom

47 - (DG) - *Predator* alien - firing missiles - missile (used to be Danny Glover from *Predator* 2)

48 - (4H) - 4 of hearts (my dog) - peeing - pee

49 - (49) - Jerry Rice (from San Fran 49ers) - catching - football

50 - (50) - 50 Cent (the rapper) - putting a bulletproof vest on - bulletproof vest

51 - (EA) - John Madden (sports commentator) - on a microphone - microphone

52 - (52) - Marty McFly (I mistakenly thought he traveled back in time to 1952) - skateboarding - skateboard

53 - (EC) - Eric Clapton - playing guitar - guitar

54 - (ED) - ED the talking horse - riding - horse

55 - (EE) - Elton John (just because) - reading - book

56 - (ES) - Edward Scissorhands - cutting - scissors

57 - (EG) - EGon from *Ghostbusters* - zapping - ghost

58 - (5H) - 5 of hearts (my climbing buddy) - climbing - mountain

59 - (EN) - Edward Norton (as the Hulk) - mopping - mop

60 - (SO) - Sinéad O'Connor - ripping - pope hat

61 - (SA) - Sam Adams (the guy on Sam Adams beer logo) - drinking - beer

62 - (SB) - Sandra Bullock (from the movie *Speed*) - driving a bus - bus

63 - (SC) - Stephen Colbert - standing - desk

64 - (SD) - Spencer (my brother) - playing Game Boy - Game Boy

65 - (65) - My mom (because she's roughly 65) - cooking - pot/pan

66 - (66) - Satan (666) - setting fire - fire

67 - (SG) - Guitarist from a band I like - head banging - Gibson SG guitar

68 - (SH) - Stephen Hawking - in a wheelchair - wheelchair

69 - (69) - David (friend of mine, his birthday is 6/9) - spinning - dreidel

70 - (GO) - GOku (cartoon character) - shooting a fireball - fireball

71 - (GA) - Baby ("GAGA") - cradling - baby

72 - (GB) - George Bush - waving a flag - flag

73 - (GC) - Batman (George Clooney) - pulling mask over face - bat

74 - (GD) - Gerard Depardieu - sword fighting - sword (as a musketeer)

75 - (75) - My grandfather - digging - shovel (75 is a grandpa-ish age)

76 - (GS) - Geoff S. (teacher I had) - writing on a white board - white board

77 - (GG) - Galileo Galilei - opening - fridge

78 - (7H) - 7 of hearts (former boss) - eating pizza - pizza

79 - (GN) - Gary Neville (soccer player) - playing soccer - soccer ball

80 - (HO) - Santa Claus ("HO-HO-HO!") - giving out presents - Christmas tree

81 - (HA) - HAppy Gilmore - laughing - laughter (Adam Sandler in that movie)

82 - (HB) - Halle Berry - putting on a bra - bra

83 - (??) - Bear Grylls (not sure why) - biting the head off something - frog

84 - (HD) - Larry David - standing on a flat screen TV - TV

85 - (??) - Jason Alexander (from *Seinfeld*) - eating a sandwich - sandwich

86 - (HS) - Homer Simpson - running around in circles - donut

87 - (87) - Michael Jackson (he started getting awesome circa '87) - moonwalking - nose

88 - (8H) - 8 of hearts (my friend Robert) - deejaying - vinyl record

89 - (??) - my friend Heather from a past job - serving off a tray - tray

90 - (NO) - Lead singer of band called NOFX - playing bass - bass guitar

91 - (NA) - Neil Armstrong - spacewalking - spaceman
92 - (NB) - Niels Bohr (scientist) - wiping - towel
93 - (NC) - Nicolas Cage - pulling off his face - face (I think of him in the ’90s movie *Face/Off*)
94 - (ND) - Neil Diamond - saying “Hello” - hand
95 - (NE) - Tom Brady (from NE Patriots) - throwing - helmet
96 - (NS) - Noah Sheer (friend of mine) - driving - car
97 - (??) - Prisoner (not sure why) - dragging - ball and chain
98 - (9H) - 9 of hearts (my wife) - having sex - sex
99 - (NN) - NiNja Turtle - being arrested - handcuffs

PASSWORD SYMBOL IMAGES (ALSO FOR POEMS/TEXTS)

You’re having trouble with thinking of people/aetions/objeets for the random symbols in your password, right? No worries, here are my go-to images. I also use these to remember punctuation marks in poems (for when I have to write them out perfectly [see this page]). Most of these eome from what I feel is right, others kind of look like the image. Also, I don’t use a person for this kind of memory task, as it’s too arbitrary—so only an action and an object. In chapter 5 (this page), we just made them up as we went along. That works too—but if you’re worried about misinterpreting your password, go and memorize these (or your own).

lightning electrocuted	!	
looking at something	“	
hammering something	#	
shivering	$	
middle finger	%	
dancing	&	
crying	’	
hugging	(	
jumping	)	
explosion	*	
calculating	+	
falling	,	
firing gun	-	
killing/stabbing	.	

leaning forward	/
tapping	:
mopping	;
aligning down	<
urinating	=
defecating	>
hooking something	?
eating something	@
swinging a club	[
leaning back	\
catching something	]
climbing	^
sliding/slipping	_
dropping something	`
loading a bow and arrow	{
sticking something into the ground	|
shooting a bow and arrow	}
caressing a mustache thoughtfully	~
stepping forcefully	…

COMMON WORD LIST IMAGES FOR POEMS/TEXTS

Here are words that will often come up in text memorization. These words alone don't really mean much, so they can be tricky when trying to infuse them with a fun, memorable picture. See this page for some examples of how to put this to use.

circle	and
square	or
off switch	of
eye	I
butt	but
asshole	as
sew	so
CD-ROM	from
hen	then
the hand from *The Addams Family*	thing
Cousin Itt from *The Addams Family*	it
Château D'If (a famous prison off the south coast of France)		
sunflowers	may
Luke Skywalker	like a
Darth Vader	is like a

RESOURCES

If your first resource is this book (and may I say you've made a mighty fine choice), here are others that will help you along further.

I mainly use three particular websites for training:

1. **Art of Memory**—A website that really has it all: a vast wiki of all memory techniques, tutorials, an incredibly useful forum to share ideas and pose questions, as well as some great training software and games (www.artofmemory.com).
2. **Memocamp**—A website designed specifically for memory athletes looking for all the competition events in one place. It's based off a level earning system, so you start off simple; as you improve, you can unlock increasingly more difficult challenges (www.memocamp.com).
3. **Memrise**—A website aimed primarily at (but not limited to) memorizing vocabulary in any language. It reminds you when you need to review and provides lovely mnemonics for every word you learn (www.memrise.com).

Other websites/tools I recommend:

1. **Anki**—Anki is a spaced repetition flashcard program. It helps you organize information you're trying to learn as flashcards and then reminds you when it's time to review. It can be downloaded as a smartphone app to help you on the go (https://apps.ankiweb.net).
2. **Memoriad**—Memoriad is another memory competition that takes place every so often, and it uses some great software. You can download the software for free and use it to train on numbers, cards, names, and binary numbers. The names and faces are limited, though (www.memoriad.com).
3. **Memory League**—A website I cocreated that allows you to train your memory by competing against others in short memory matches online. Super addictive (http://app.memoryleague.com)!
4. **My website**—Check out www.nelsondellis.com for more tips and great video tutorials. I've also created some files for you that will help you generate practice sets for memorizing different kinds of information as well as templates for building out some of your more complex memory systems. You can find those all at www.nelsondellls.com/sample-sheets.

You don't even need an Internet connection to practice with these:

1. **Playing Cards**—I will rant and rave until I'm blue In the face

about how great a daily exercise this is. Everyone has a deck of cards and they're easy to transport. Get on this!

2. **Yearbooks**—You can always find these at your school, online, at thrift stores everywhere. These are fantastic for practicing names and faces.
3. **License Plates**—Most of us are on the roads every morning and evening commuting to and from work. To practice numbers on the go, just look at the cars around you and memorize license plates. If you don't drive, try to look for other numbers out in the wild (most subway cars have an identification number somewhere, for example).

YOUR TRAINING REGIMEN

It makes sense that, after sharing a whole book of memory tips, I offer some kind of training regimen for those who might want to go above and beyond memorizing everyday things. I personally train every single day. But then again, I train to win memory competitions. I'm not asking you to spend hours the way I do. Fifteen to twenty minutes a day (spread out through the day if you'd like) is all you need to see some serious, life-changing memory improvements.

The tough thing about training your memory is that there is no simple way to train intensively on the types of things you might need to memorize in everyday life. Are you going to pick random people off the street and ask them to throw their phone numbers at you or give you a list of random talking points for a theoretical speech? Rather, I recommend focusing on four of the memory disciplines that appear in memory competitions. These exercises will cover everything you could ever need—directly, in terms of information, or indirectly, in terms of your **SEE–LINK–GO!** skills. All these disciplines are great exercises to do daily, because they're easily measured with some simple day-to-day analysis of performance (speed, volume, and accuracy). And even though they may not be exactly what you're looking for, they will help hone your memory skills in general—which will, in turn, help you get faster and more confident when it comes to memorizing in real life.

1. **Cards**—We went through the progression of how to nail your first deck of cards in chapter 6 (this page). The first time you did it probably took you twenty minutes or so, but don't worry, that time quickly goes down. And while memorizing one deck of cards as your practice for the day may not feel like much, trust me when

I say that there is *nothing* better for training your brain than this.

2. **Names**—Probably one of the more useful skills that apply to real life. I mentioned a few resources on this page that you can use to practice. Choose one and start practicing.
3. **Numbers**—You can find numbers everywhere, so training just depends on what you're interested in doing with them. Do you want to memorize a huge number? Or just your phone numbers? Gather some numbers relevant to you and get started.
4. **Words**—This is another highly relevant discipline to train. Think of it like memorizing your to-do or grocery list. Generate a list of random words using one of the resources below and get going!

The key to training in all these disciplines is to choose a fixed amount of material (start small and work your way up as you feel more comfortable). And—even more important—time yourself! You can either measure how long it takes to complete the memorization or give yourself a time limit and see how much you can memorize in that time. Just choose one structure and stick with it.

The next thing you need to do is to KEEP NOTES. You can't get better unless you practice with immediate feedback. Keep a journal of your daily performances in all the disciplines. It will make you push yourself every day to get faster and more accurate.

PAO LIST FOR CARDS

Here you have my personal list of PAO for all fifty-two playing cards. Keep in mind that the face cards' images were determined by how they felt to me at the time; most of the number cards were decided by using the PAO System. Others were based on some category for the suit when I had no other option or felt like the image I had was not a great one (e.g., hearts = loved ones. I replaced the PAO numbering system with friends and family to represent any card with a heart on it as that was more memorable for me). You'll also notice that I sometimes use the translation from letters to number, then use the PAO I have from my number system (e.g., 2 of diamonds = BD or 24 = Kobe Bryant [his jersey number]). In brief, a lot of this list has been morphed over time to fit what felt most intuitive for me. I encourage you to do the same!

SPADES

A - (AS) - Arnold Schwarzenegger - barbell

2 - (BS) - Britney Spears - dropping something - snake

3 - (CS) - Sniper (from the game *Counter-Strike*, CS) - sniping - sniper rifle

4 - (DS) - Super Mario - bouncing - mushrooms (DS is Mario because of the Nintendo DS Game Boy System)

5 - (ES) - Edward Scissorhands - cutting - scissors

6 - (66) - Satan- setting fire (since we are dealing with the initials SS, which is also like 66, which reminds me of Satan)

7 - (GS) - Geoff Sutcliffe (teacher I had) - teaching on a white board - white board

8 - (HS) - Homer Simpson - running around in circles - donut

9 - (NS) - Noah Sheer (friend of mine) - driving - car

10 - (OS) - Steve Jobs (Mas OS X) - typing - laptop

J - (JS) - Michael Jackson - moonwalking - nose (JS reminds me of Jack-son)

Q - (QS) - Jennifer Connelly (actress) - defecating - feces (I'll let you come up with replacements here . . .)

K - (KS) - David (friend of mine) - spinning - dreidel

HEARTS

A - Arnaud (friend of mine) - kayaking - kayak

2 - Ex-girlfriend - crying - fears (2 was her favorite number)

3 - Jana (friend of mine) - putting on lipstick - lipstick (3 is her favorite number)

4 - Henry (my brindle French bulldog) - peeing - dog (4 because he has 4 legs)

5 - My climbing buddy - climbing - mountain

6 - (SH) - Stephen Hawking - in a wheelchair - wheelchair

7 - Diane (my ex-boss) - eating a slice of pizza - pizza (7 was her favorite number)

8 - Robert (friend of mine) - deejaying - vinyl record (8 just seemed fitting for him)

9 - My wife - having sex - sex

10 - Omar (my gynecologist friend) - touching a vagina - vagina (10 because 10 has an O for Omar)

J - (JH) - Johnny Depp as a pirate - sailing - boat (Johnny is a heartthrob, J of hearts)

Q - Mom - cooking - pan (she is the queen of my heart, d'awwwww!)

K - Dad - signing a document - paper (and the king of my heart)

DIAMONDS

A - (1.4.) - ME - solving - Rubik's Cube (imagine a tall ginger guy, that's me. AD = 14, my favorite number)

2 - (2.4.) - Kobe Bryant - dribbling - basketball (2D = 24, Kobe's jersey number)

3 - (3.4.) - Shaquille O'Neal - dunking - backboard (3D = 34, Shaq's jersey number)

4 - (DD) - Dolly Parton - shaking her boobs - boobs (Dolly Parton has double D breasts, DD)

5 - (ED) - Ed the talking horse - riding - horse

6 - (SD) - Spencer (my brother) - playing a Game Boy - Game Boy

7 - (GD) - Gerard Depardieu - sword fighting - sword (as a musketeer)

8 - (HD) - Larry David - standing on a flat screen HDTV - flat screen HDTV

9 - (ND) - Neil Diamond - singing "Hello" - hand

10 - (OD) - Oscar De La Hoya (boxer) - punching - glove

J - (JD) - Jennifer (my sister) - being angry - tongue

Q - (QD) - Ex-girlfriend - shopping with a bag - shopping bag (buying jewelry)

K - (KD) - James Bond - sipping - martini glass (king of diamonds just feels like James Bond to me)

CLUBS

A - (1.3.) - Ex-girlfriend - shaking her butt - thong (her favorite number was 13 = AC)

2 - (BC) - Jesus Christ - being crucified - cross (BC = Before Christ)

3 - (C3) - C3P0 (*Star Wars* robot) - doing the robot dance - robot

4 - (DC) - David Copperfield (or any generic magician) - waving a wand - wand

5 - (EC) - Eric Clapton - playing guitar - guitar

6 - (SC) - Stephen Colbert - standing - desk

7 - (GC) - Batman (George Clooney Batman) - pulling mask over face - bat

8 - Bear Grylls (from the show *Man vs. Wild*) - biting the head off something - toad

9 - (NC) - Nicolas Cage - pulling off his face - head (I think of him in

the ’90s movie *Face/Off*)

10 - (OC) - Jack Black - falling on the floor - floor (OC, or *Orange County*, was a movie he was in)

J - (JC) - Jason (or George from *Seinfeld*) - eating a sandwich - sandwich (reminds me of the episode where he was attempting to eat a sandwich and watch TV while being pleasured by a girl he was dating)

Q - (QC) - Paris Hilton - dancing - dance floor (she is literally the queen of clubs—night clubs, anyway)

K - (KC) - Tiger Woods - swinging a club - golf club (he is literally the king of clubs)

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ACKNOWLEDGMENTS

This book has been a memorable journey in itself. Ever since Joshua Foer encouraged me to write the perfect *how-to* memory book to accompany his bestseller *Moonwalking with Einstein*, I've been motivated to see this book through. Through all the ups and downs over the years writing, rewriting, pitching, getting offers, losing offers, and rejections, I'm so thankful to all the people in my life who hung on and helped me get to the end.

Thanks to my loving wife, Leah, who helped give me clarity on my writing and the project as a whole. I spent some long nights writing and editing, and she was always there to support me. I love you!

Thank you to my agent, Jim Levine, for never giving up on this project. He loved the book from the very start and never gave up on pitching it (I think we pretty much pitched to everyone in the literary world).

Thank you to the incredible team at Abrams, who decided to give this book a shot. A huge thank you to my editor, Laura Dozier, for being on the same wavelength as me about what this book should be and for taking all my crazy book-related ideas in stride. You turned an okay book into an absolutely AWESOME book. Thank you. Thank you to the rest of the team who helped design, illustrate, promote, sell, brainstorm, proofread, ALL THE THINGS! You guys were indispensable!

Lastly, thank you to my family and my close friends for being a part of my life (and my memories). Without you, none of my memory techniques would be so memorable. They are entirely made up of all of you!

Editor: Laura Dozier
Designer: Devin Grosz
Production Manager: Michael Kaserkie

Library of Congress Control Number: 2017956863

ISBN: 978-1-4197-3256-0
eISBN: 978-1-68335-343-0

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—Joshua Foer, author of the *New York Times* bestseller *Moonwalking with Einstein*

In this whimsical, vibrantly illustrated tour of memory theory, memory champion Nelson Dellis offers an unforgettable manual to sharpening the mind and unlocking your memory. He explores how our brains work by teaching strategies for remembering the everyday, practical things that can be all too easy to forget, such as:

* where you left your keys and parked your car
* the phone number of someone you met at the bar
* the eleventh president of the United States (and all the others)
* what you needed to buy at the grocery store
* what your partner asked you to do this morning
* the names of the people you just met
* new vocabulary, in foreign languages or otherwise
* every password you've ever created
* and much more!

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